

# **Parts Manual**



Our energy working for you.™

Generator Set with Detector ™/2-Wire Remote Control

GGDB (Spec A-E)

#### MODEL IDENTIFICATION

To avoid errors or delay in filling your parts order, always give the MODEL, SPEC NO. and SERIAL NO. from the Cummins Power Generation nameplate.

For handy reference, insert your nameplate information in the spaces below.

MODEL AND SPEC NO.

SERIAL NO.

DIGITAL CONTROL SOFTWARE VERSION AND DATE (IF APPLICABLE)

#### SAFETY PRECAUTIONS

The following symbols are used in Cummins Power Generation manuals to alert users to the potentially dangerous conditions relating to maintenance of equipment and replacement of parts. Please read and observe.

**▲ DANGER** 

This symbol warns of immediate hazards which will result in severe personal injury or death.

**△**WARNING

This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.

**△CAUTION** 

This symbol refers to a hazard or unsafe practice which can result in severe personal injury or product or property damage.

# PRODUCT SAFETY PRECAUTIONS

**△WARNING** 

Service and repair of Cummins Power Generation equipment must be performed by trained, experienced personnel only. Improper service or repair may result in property damage, severe personal injury or death. Do not use this catalog as a guide to servicing your equipment. Read and follow the IMPORTANT SAFETY INSTRUCTIONS in the Service Manual appropriate for the equipment you are working on.

**△WARNING** 

Contact with USED ENGINE OILS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking or changing engine oils take all necessary precautions not to ingest, breathe the fumes or contact the used oil.

**△WARNING** 

Contact with ASBESTOS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When handling engine gaskets take all necessary precautions not to ingest, breathe or contact the dust from the gaskets! Use adequate ventilation and wear protective gloves, masks and clothing!

**△WARNING** 

Contact with BENZINE and LEAD, found in gasoline, fuel additives and solvents has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking, draining or adding gasoline and fuel additives or using solvents take all necessary precautions not to ingest, breathe the fumes or contact the liquids. Use adequate ventilation and wear protective gloves, masks and protective clothing!

#### Introduction

This parts catalog applies to the Cummins Power Generation standard generator model GGDB as listed in the Generator Set Data Table. Parts are arranged in groups of related items and each illustrated part is identified by a reference number corresponding with the same reference number in the parts list. Parts illustrations are typical. Throughout this catalog left and right sides are determined by facing the engine end (front) of the set.

Engine parts that have been modified or added by Cummins Power Generation are identified in this catalog. All other engine replacement parts must be ordered from the engine manufacturer by referring to the engine manufacturers nameplate and supplying all available information. Contact your nearest engine parts distributor for assistance in ordering replacement parts.

# **Replacement Engine**

Cummins Power Generation Generator Model	Ford Engine Model
GGDB	LRG425I-6005-A

Replacement engines cannot be ordered from Cummins Power Generation. Order from your nearest Ford Distributor.

#### **Generator Set Data Table**

Model/		Ele	Battery			
Specification	Watts	Volts	Hertz	Wire	Phase	Voltage
16.0GGDB*	16,000	#	50	4,6,12	1 or 3	12 VDC
20.0GGDB*	20,000	#	60	4,6,12	1 or 3	12 VDC

<sup>\*</sup> The specification number denotes customer requested options or deviations from the Standard model. The specification letter advances with major manufacturing changes.

# Broad Range Reconnectible.

# Α

Adapter, Duct, 26

Adapter, Generator, 9

Ammeter, AC - Sets With Detector Control, 49

Armature, Starter, 36

# В

Baffle, Air - Generator - Begin Spec E, 45

Baffle, Air - Generator - Spec A-D, 43

Battery, Hold Down - Begin Spec E, 31

Battery, Hold Down - Skid - Spec A-D, 30

Bearing, Starter (Commutator End), 36

Bearing, Starter (Pinion End), 36

Bell, End - Generator - Begin Spec E, 45

Bell, End - Generator - Spec A-D, 43

Block, Terminal – Control Box – Sets With 2–Wire Control, **51** 

Block, Terminal – Control Box – Sets With Detector Control, **49** 

Block, Terminal – Control Harness – Sets With 2–Wire Control, **51** 

Block, Terminal – Control Housing – Sets With Detector Control, **39** 

Block, Terminal – Engine to Control Wiring Harness – Sets With Detector Control – Begin Spec D, **55** 

Block, Terminal – Engine to Control Wiring Harness – Sets With Detector Control – Spec A–C, **53** 

Board, Connection - Generator - Begin Spec E, 45

Board, Connection - Generator - Spec A-D, 43

Board, Printed Circuit - Engine Monitor - Sets With Detector Control, **49** 

Board, Printed Circuit - Overspeed - Sets With 2-Wire Control, **41** 

Board, Printed Circuit – Sensor Board – Sets With Detector Control, **49** 

Board, Printed Circuit - Voltage Regulator, 60

Box, Control - Sets With 2-Wire Control, 51

Box, Control - Sets With Detector Control, 49

Brace, Radiator - Begin Spec B, 29

Brace, Radiator - Spec A, 28

Bracket, Air Cleaner - Muffler, 22

Bracket, Battery - Guard, 9

Bracket, Control Saddle, 39

Bracket, Coolant Tank, 23

Bracket, Front - Engine Mounting - Skid, 30

Bracket, Heater - Coolant Heater, 24

Bracket, Mounting - Circuit Breaker - Sets With 2-Wire Control, **51** 

Bracket, Mounting - Circuit Breaker - Sets With Detector Control, **63** 

Bracket, Overspeed - Sets With 2-Wire Control, 41

Bracket, Overspeed Switch – Sets With Detector Control, **40** 

Breaker, Circuit - Control Box - Sets With 2-Wire Control, **51** 

Breaker, Circuit - UL Listed - Begin Spec B, 65

Breaker, Circuit - UL Listed - Spec A, 64

Breaker, Circuit – UL Listed, IEC Conformity – Begin Spec B, **65** 

Breaker, Circuit – UL Listed, IEC Conformity – Spec A, 64

Breaker, Circuit - Voltage Regulator, 60

Breather, Air Cleaner - Spec A, B, 12

#### C

Cable, Battery, 9

Cable, Heater - Control, 47

Cap, Radiator - Begin Spec B, 29

Cap, Radiator - Spec A, 28

Cap, Tank - Coolant Tank, 23

Cleaner, Air - Begin Spec C, 13

Cleaner, Air - Spec A, B, 12

Clutch, Starter, 36

Contact, Auxiliary Switch - Begin Spec B, 65

Contact, Auxiliary Switch - Spec A, 64 Filter, Air - Spec A, B, 12 Contact, Dry - Begin Spec B, 59 Filter, Oil, 9 Frame, Starter (Commutator End), 36 Control, 2-Wire, 51 Fuel System, Natural Gas, 15 Control, Detector, 49 Fuel System, Natural Gas - With Low Fuel Pressure Cord, Heater - Generator Heater, 46 Warning Switch - Begin Spec B, 18 Cover, Air Cleaner - Spec A, B, 12 Fuel System, Natural Gas/Propane Liquid With Low Pressure Switch and Automatic Changeover, 21 Cover, Battery - Begin Spec E, 31 Fuel System, Natural Gas/Propane Vapor With Low Cover, Circuit Breaker - Sets With 2-Wire Control, 51 Pressure Switch and Automatic Changeover, 20 Cover, Circuit Breaker - Sets With Detector Control, 63 Fuel System, Propane Liquid, 17 Cover, Control Box - Sets With 2-Wire Control, 51 Fuel System, Propane Vapor, 16 Cover, Control Door - Sets With Detector Control - Be-Fuel System, Propane Vapor - With Low Fuel Pressure gin Spec E, 62 Warning Switch - Begin Spec B, 19 Cover, Control Housing - Sets With Detector Control, Fuse – Control Box – Sets With 2–Wire Control, 51 Fuse - Control Box - Sets With Detector Control, 49 Cover, End Bell, 46 Cushion, Mounting - Skid, 30 G Cushion, Vibration Isolation - Skid, 30 Gasket, Air Cleaner - Spec A, B, 12 Gauge, Oil Pressure - Sets With 2-Wire Control - Engine Mounted, 14 Disk, Rotor Drive - Generator - Begin Spec E, 45 Gauge, Oil Pressure - Sets With Detector Control -Control Mounted, 49 Disk, Rotor Drive - Generator - Spec A-D, 43 Gauge, Water Temperature - Sets With 2-Wire Control Door, Control - Sets With Detector Control, 49 - Engine Mounted, 14 Drain, Radiator, 25 Gauge, Water Temperature – Sets With Detector Control - Control Mounted, 49 Generator (Assembly) - Begin Spec E, 45 E Generator (Assembly) - Spec A-D, 43 Element, Air Cleaner - Begin Spec C, 13 Governor - Begin Spec D, 38 External Engine Parts, 9 Governor - Spec A-C, 37 Grille, Air Outlet - Engine, 9 Guard, Alternator Belt – Radiator – Begin Spec B, 29 Fan, Engine - Begin Spec B, 29 Guard, Alternator Belt - Radiator - Spec A, 28 Fan, Engine - Spec A, 28 Guard, Alternator Belt - Remote Radiator, 27 Fan, Generator – Begin Spec E, 45 Guard, Belt - Remote Radiator, 27 Fan, Generator - Spec A-D, 43 Guard, Fan - Radiator - Begin Spec B, 29

Guard, Fan - Radiator - Spec A, 28

Guard, Radiator - Begin Spec B, 29

Guard, Radiator - Spec A, 28

#### Н

Hanger, Tank - Coolant Tank, 23

Harness, Wiring – AC Auxiliary – Sets With Detector Control – Begin Spec D, **55** 

Harness, Wiring – AC Auxiliary – Sets With Detector Control – ☑Spec A–C, **53** 

Harness, Wiring – AC Control Door – Sets With Detector Control, **49** 

Harness, Wiring – Control Box – Sets With 2–Wire Control, **51** 

Harness, Wiring – DC Control Door – Sets With Detector Control, **49** 

Harness, Wiring - Dry Contact - Begin Spec B, 59

Harness, Wiring – Dual Fuel – Natural Gas/Propane Vapor With Low Pressure Switch and Automatic Changeover, **20** 

Harness, Wiring – Dual Fuel Natural Gas/Propane Liquid With Automatic Changeover, **21** 

Harness, Wiring – Engine to Control – Sets With 2–Wire Control – Begin Spec D, **58** 

Harness, Wiring – Engine to Control – Sets With 2–Wire Control – Spec A–C, **57** 

Harness, Wiring – Engine to Control – Sets With Detector Control – Begin Spec D, **55** 

Harness, Wiring – Engine to Control – Sets With Detector Control – Spec A–C, **53** 

Harness, Wiring - Ignition, 9

Harness, Wiring – Terminal Block – Sets With Detector Control, **49** 

Harness, Wiring – Vacuum Switch, 61

Heater, Control, 47

Heater, Engine Coolant, 24

Heater, Generator, 46

Hose, Air Cleaner - Begin Spec C, 13

Hose, Breather - Air Cleaner - Spec A, B, 12

Hose, Engine Coolant - Radiator - Begin Spec B, 29

Hose, Engine Coolant - Radiator - Spec A, 28

Hose, Radiator - Begin Spec B, 29

Hose, Radiator - Remote Radiator, 27

Hose, Radiator - Spec A, 28

Hose, Radiator Drain, 25

Housing, Air Cleaner - Spec A, B, 12

Housing, Control - Detector Control, 39

Housing, Generator Set – Quiet Site Second Stage – Begin Spec B, **35** 

Housing, Generator Set – Standard Weather Protective, **33** 

Housing, Starter, 36

Isolator, Vibration – Control Box – Sets With 2–Wire Control, **51** 

Isolator, Vibration – Control Box – Sets With Detector Control, **49** 

#### J

Joint, Ball - Governor - Begin Spec D, 38

Joint, Ball - Governor - Spec A-C, 37

# K

Kit, Starter Brush, 36

# L

Lever, Governor - Begin Spec D, 38

Lever, Governor – Spec A-C, 37

Light, Indicator - Sets With Detector Control, 49

# M

Meter, Frequency - Sets With Detector Control, 49

Meter, Hour - Sets With 2-Wire Control, 51

Meter, Hour - Sets With Detector Control, 49 Relay - Control Harness - Sets With 2-Wire Control, Module, Ignition - Begin Spec D, 11 Relay - Dry Contact - Begin Spec B, 59 Module, Ignition - Spec A, B, 9 Relay - Engine to Control Wiring Harness - Sets With Module, Ignition - Spec C, 10 Detector Control - Begin Spec D, 55 Relay - Engine to Control Wiring Harness - Sets With Mount, Radiator - Begin Spec B, 29 Detector Control - Spec A-C, 53 Mount, Radiator - Spec A, 28 Relay, Timer - Sets With 2-Wire Control, 51 Muffler, Critical, 22 Rotor, Exciter - Begin Spec E, 45 Rotor, Exciter - Spec A-D, 43 Rotor, Generator - Begin Spec E, 45 Overspeed, Electronic - Sets With 2-Wire Control, 41 Rotor, Generator - Spec A-D, 43 Rotor, Ignition - Overspeed - Sets With 2-Wire Control, **41** Р Paint, 7 S Panel, Control Box - Sets With 2-Wire Control, 51 Sealant, Thread, 7 Panel, Control Housing - Sets With Detector Control, Sender, Oil Pressure - Sets With Detector Control, 9 Pickup, Magnetic - Governor - Begin Spec D, 38 Sender, Water Temperature - Sets With Detector Control, 9 Pickup, Magnetic - Governor - Spec A-C, 37 Shield, Exhaust – Engine, 9 Point, Overspeed - Sets With Detector Control, 40 Shield, Heat – Muffler, 22 Potentiometer - Voltage Regulator, 60 Shroud, Fan - Radiator - Begin Spec B, 29 Shroud, Fan - Radiator - Spec A, 28 R Skid, **30** Radiator - Begin Spec B, 29 Starter, 36 Radiator - Spec A, 28 Stator, Exciter - Begin Spec E, 45 Radiator, Remote, 27 Stator, Exciter - Spec A-D, 43 Rectifier - Control Harness - Sets With 2-Wire Control, Stator, Generator - Begin Spec E, 45 Stator, Generator - Spec A-D, 43 Rectifier - Generator - Begin Spec E, 45 Strap, Electrical - Engine, 9 Rectifier - Generator - Spec A-D, 43 Strap, Ground - Control Box - Sets With Detector Con-Rectifier, Power - Control Heater, 47 trol, 49 Regulator, Voltage – Sets With 2–Wire Control, 51 Switch, Low Coolant Level, 23 Regulator, Voltage - Sets With Detector Control, 60 Switch, Oil Pressure - Sets With 2-Wire Control, 9 Relay - Control Box - Sets With 2-Wire Control, 51 Switch, Overspeed - Sets With Detector Control, 40

Switch, Rocker - Control Box - Sets With 2-Wire Con-

trol, **51** 

Switch, Rocker - Control Box - Sets With Detector Control, 49

Switch, Starter, 36

Switch, Vacuum, 61

Tank, Coolant, 23

Thermostat - Sets With 2-Wire Control, 9

Trip, Shunt - Begin Spec B, 65

Trip, Shunt - Spec A, 64

Tube, Exhaust – Muffler, 22

Voltmeter, AC - Sets With Detector Control, 49

Voltmeter, DC - Sets With Detector Control, 49

### **Abbreviations**

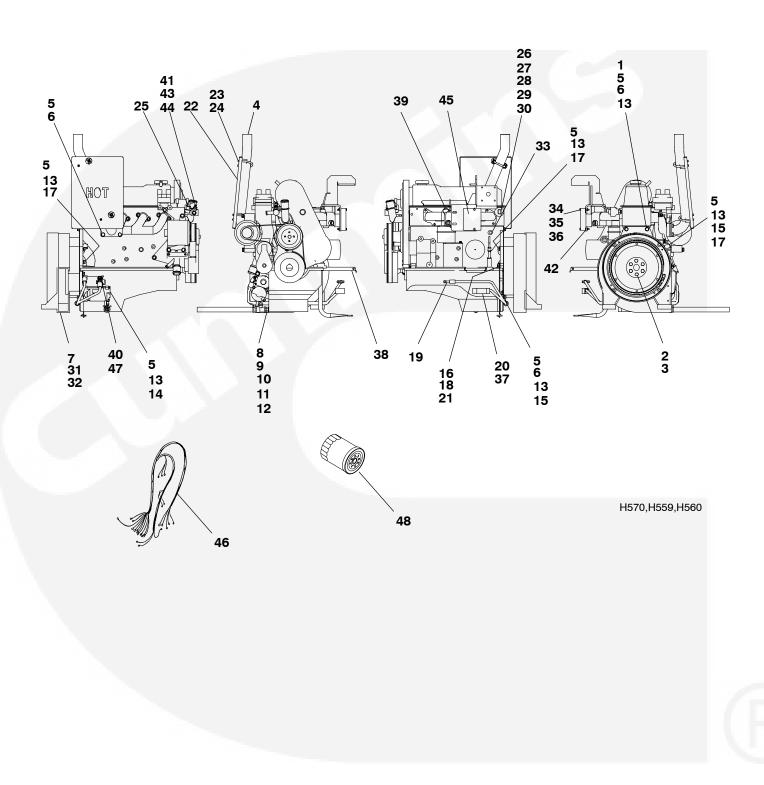
Some of the following abbreviations may be used throughout this Parts Catalog:

AC	Alternating Current	mm	Millimeter
Amp	Ampere	MOH	Mobile Off Highway
A/R	As Required	NFS	Not For Sale
AVR	Automatic Voltage Regulator	NPT	National Pipe Thread
AWG	American Wire Gauge	OD	Outside Diameter
Deg	Degree	oz.	Ounce
DC	Direct Current	PMG	Permanent Magnet Generator
EFC	Electronic Fuel Control	Ph	Phase
ET	External Tooth	PC	Printed Circuit
EIT	External/Internal Tooth	RFI	Radio Frequency Interference
GFI	Ground Fault Interrupter	RT	Right
ID	Inside Diameter	Spec	Specification
IT	Internal Tooth	Thk	Thick
IEC	International Electrotechnical	UL	Underwriters Laboratories Inc.
	Commission	UNC	Union National Coarse
kW	Kilowatt	UNF	Union National Fine
LPG	Liquid Petroleum Gas	VAC	Volts Alternating Current
LT	Left	VDC	Volts Direct Current
M(meter Number)	Meter	W/(ET, IT, EIT)	With

### **Paint and Thread Sealant**

REF	PART	QTY	PART	REF	PART	QTY	PART
NO.	NO.	USED	DESCRIPTION	NO.	NO.	USED	DESCRIPTION
	525-0305 525-0306 525-0304	- - -	Onan Green Enamel (Non-Metallic) 12 oz. Pressurized Spray Can Quart Can Gallon Can		518-0601	-	Sealant, Thread (6 ml. Tube)

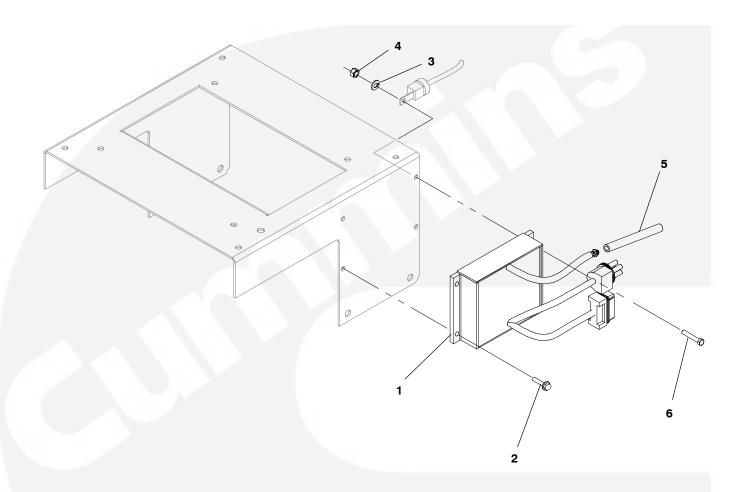
# **External Engine Parts**



# **External Engine Parts**

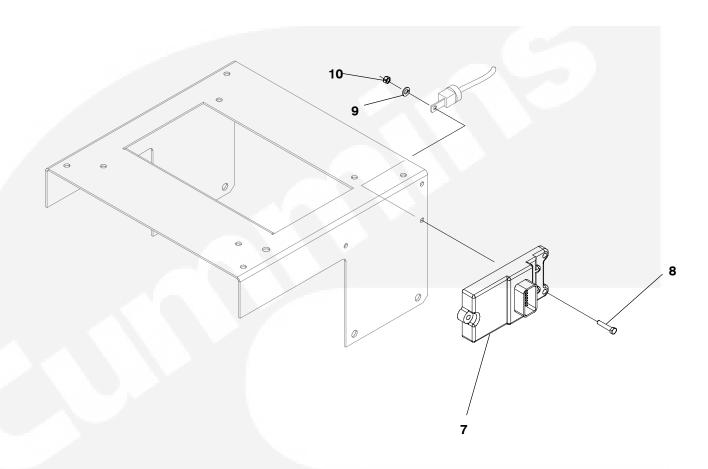
RE NC		QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1 2	101-0823 104-1951	1 1	Plate, Engine Rear Flywheel (Includes Ring Gear)	28	323-1549	1	+ Connector, Receptacle – 4 Place
3	104-1944	1	Gear, Ring	29	323-1548	1	+ Wedge, Receptacle
4	155–2984	1	Tube, Exhaust	30	323-1492	4	+ Socket, Contact
5	850-2010	14	Washer, Lock - Spring	31	234-0665	1	Grille, Air Outlet
6	800-2086	9	Screw, Cap – Hex Head (M10 x	32	803-0032	2	Screw, Set – Socket Head
_			1.25 x 25mm)				(1/4-20 x 1/4) - Spec A-D
7	231-0386	1	Adapter, Generator	33	505-0110	1	Plug, Pipe
8	102-1054-01	1	Adapter, Oil Drain	34	800-2015	2	Screw, Cap - Hex Head
9	504-0011	1	Valve, Shut Off (1/2" x 1/2")				(M5 x .8 x 45mm) – Spec
10	505-0827	1	Barb, Hose (1/2 x 3/4 Hose)				A–D
11	503-0098	-	Hose (3/4" ID) – Bulk (Order by the Foot – 1 Foot Required)	35	850–2005	2	Washer, Lock – Spring (M5) – Spec A-D
12	503-0197	1	Clamp, Hose	36	860-2006	2	Nut, Hex (M5 x .8) - Spec A-D
13	526-2120	10	Washer, Flat (M10)	37	416-1019	1	Boot, Battery - Red
14	800–2088	2	Screw, Cap – Hex Head (M10 x 1.5 x 35mm)	38 39	416–1045	1	Bracket, Battery – Guard Fitting
15	332-2634	3	Clamp, "J"		505-0054	1	Plug, Square (1/4) – Spec
16	856-0010	2	Washer, Lock - ET (M10)			-	A, B
17	800–2089	2	Screw, Cap – Hex Head (M10 x 1.5 x 40mm)			1	Fitting, Vacuum – Ford Part Number P&A
18	800-2093	2	Screw, Cap – Hex Head (M10 x 1.5 x 60mm)				E7TZ-9A474-C - Spec C-D
19	416–1046	1	Cable, Battery (Negative)	40	870-2055	1	Nut, Hex Flange
20		i	Cable, Battery (Positive)	41	505-0395	1	Bushing, Reducer (3/8 x 1/8) –
21	416–0549 337–0090	i	Strap, Electrical	41	303-0393	1	Begin Spec B
22	155-3242	1	Shield, Exhaust	42	526-0179	2	Washer, Flat (#10) – Spec A-D
23	232-3441	4	Washer, End – Bell	43	504-0179	1	Vent, Air – Begin Spec B
24	155-2715	2	Clamp, Muffler (1.75 OD Tube)	43 44	504-0198	1	Cock, Drain – Spec A
25	155-2715	2	Fitting, Water Temperature	4 <del>4</del> 45		1	Module, Ignition – Spec A, B
23	309-0662	1	Thermostat – Generator Sets With 2-Wire Control	45	166–0845	'	(Spec C Ignition Module shown on page 10 – Begin
	193-0477	1	Sender, Water Temperature				Spec D Ignition Module
			- Generator Sets With	40			shown on page 9)
00	505 0007		Detector Control	46	100 0011		Harness, Wiring – Ignition
26	505–0007	1	Bushing, Reducer (1/4" to 1/8")		166–0844 166–0868	1	Spec A, B Spec C
27			Fitting, Oil Pressure		338–4288	1	Begin Spec D
	309-0641-19	1	Switch, Oil Pressure – Generator Sets With 2-Wire	47	416–1084	1	Boot, Starter – Red – Begin Spec E
			Control (S1)	48	LF3501	1	Filter, Oil
	193-0448	1	Sender, Oil Pressure –				
			Generator Sets With Detector Control (Includes Parts Marked +) (E1)	+	Parts Include	d In 193–0	0448 Oil Pressure Sender

# Ignition Module Spec C



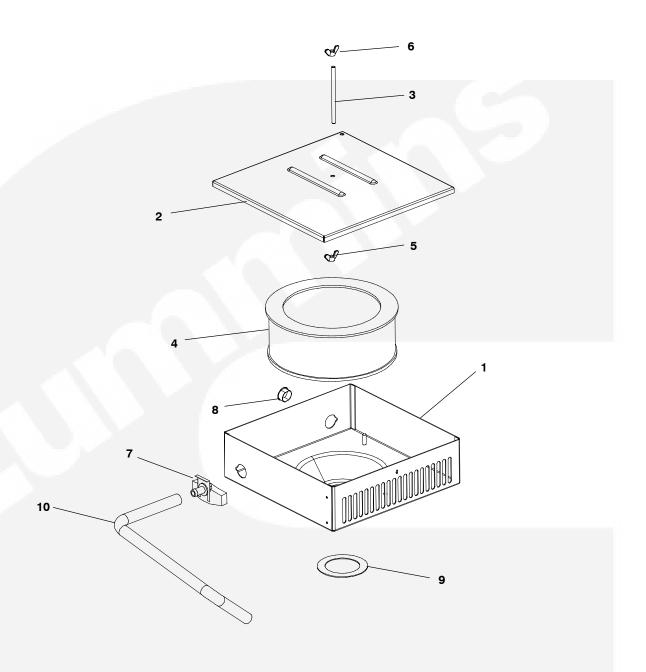
REF NO.		QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	166-0867	1	Module, Ignition	4	860-2006	1	Nut, Hex (M5 x 0.8)
2	815-0793-03	3	Screw, Hex Flange Head -	5	503-2159	_	Hose, Vacuum
			Thread Forming	6	800-2010	1	Screw, Cap - Hex Head
			(M5 x 0.8 x 12)				(M5 x 0.8 x 20)
3	850-2005	1	Washer, Lock - Spring (M5)				,

# Ignition Module Begin Spec D



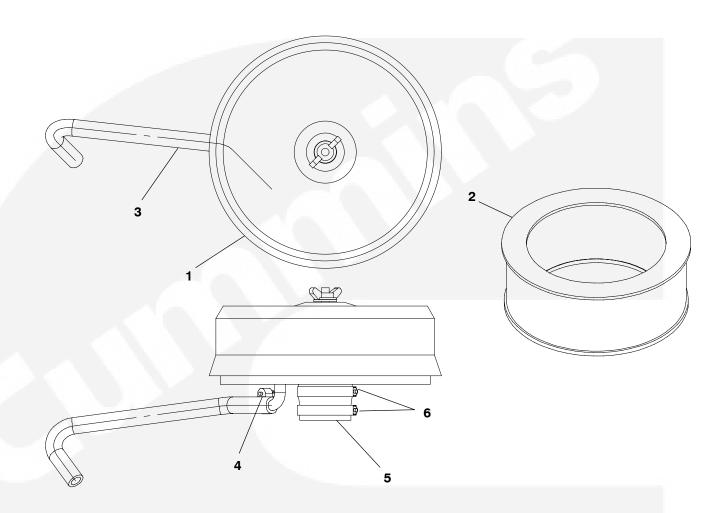
REF	PART	QTY	PART	REF	PART	QTY	PART
NO.	NO.	USED	DESCRIPTION	NO.	NO.	USED	DESCRIPTION
7 8	166-0884-01 800-2011	1 3	Module, Ignition Screw, Hex Flange Head – Thread Forming (M5 x 0.8 x 25)	9 10	850–2005 860–2006	1	Washer, Lock - Spring (M5) Nut, Hex (M5 x 0.8)

Air Cleaner Spec A, B



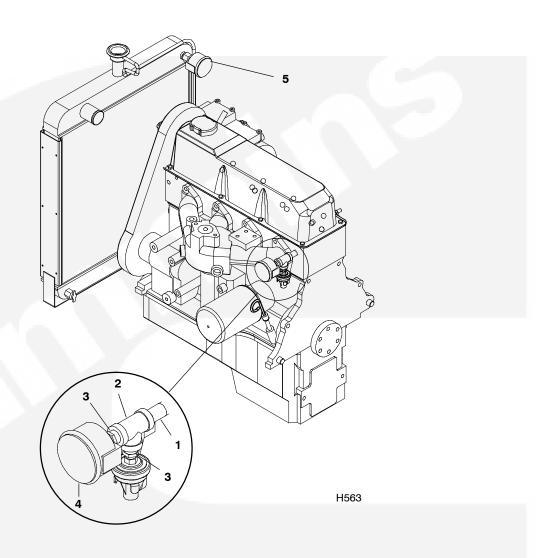
REF NO.		QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	140-3198-02	1	Housing, Air Cleaner	7	140-3146	1	Breather, Air Cleaner
2	140-3199-02	1	Cover, Air Cleaner	8	517-0289	1	Plug, Hole
3	520-1014	1	Stud (1/4-20 x 3.12)	9	140-3202	1	Gasket, Air Cleaner
4	140-3147	1	Filter, Air	10	503-1606	-	Hose, Breather - Bulk (Order
5	865-0006	1	Nut, Wing (1/4-20)				By The Foot – 2 Feet
6	865-0020	1	Nut, Wing (1/4-20)				Required)

# Air Cleaner Begin Spec C



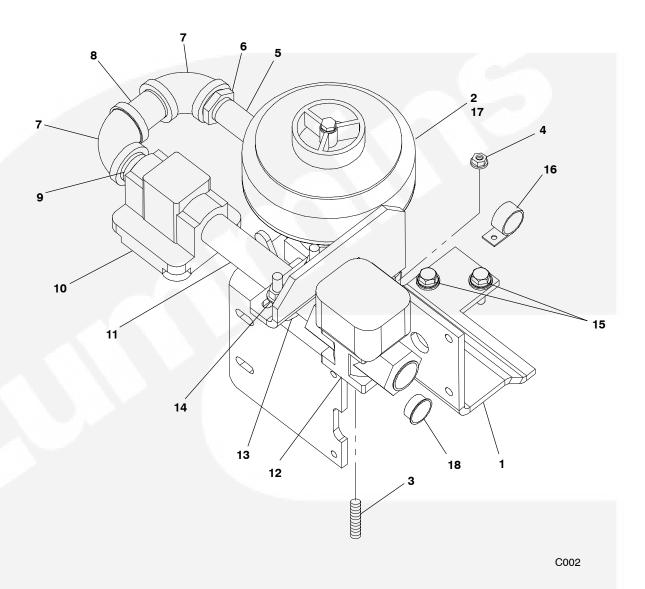
REF NO.		QTY JSED	PART DESCRIPTION	REF NO.		QTY USED	PART DESCRIPTION
1	140-3387-01	1	Cleaner, Air	4	503-0446	1	Clamp, Hose
2	140-3147	1	Element, Air Cleaner	5	503-2247	1	Hose, Air - Reducing
3	503–1606	-	Hose, Air Cleaner – Bulk (Order By The Foot – 2 Feet Required)	6	503-1870-05	2	Clamp, Hose

# Engine Gauges Generator Sets With 2-Wire Control



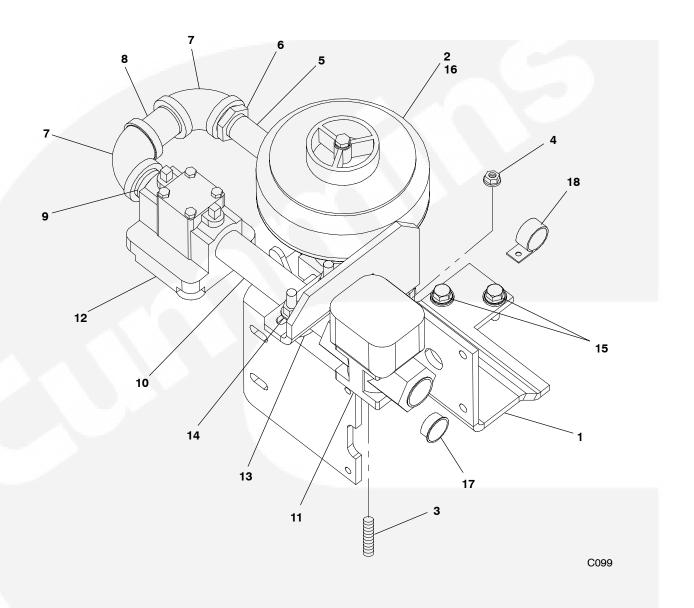
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	505-0071	1	Nipple, Pipe (1/4 X 2)	4	193-0451	1	Gauge, Oil Pressure
2	505-0184	1	Tee, Pipe	5	193-0463	1	Gauge, Water Temperature
3	505-0007	2	Bushing, Reducer (1/4 x 1/8)				- '

# Fuel System Natural Gas



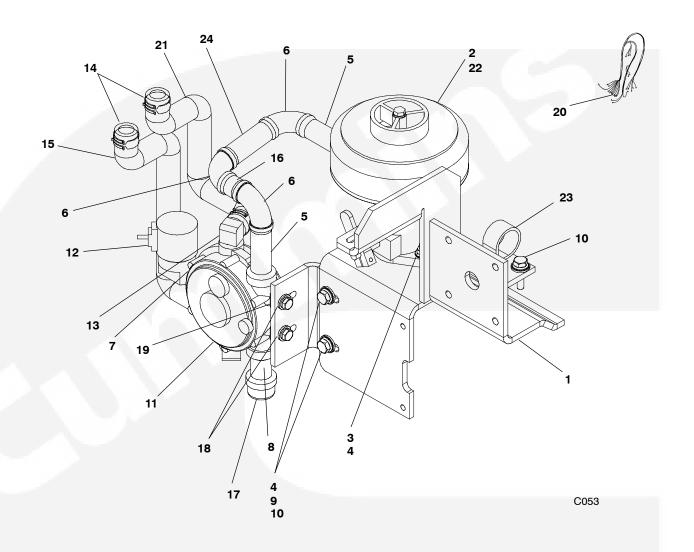
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	110.	0025	D2001111 11011		110.	JULD	DESCRIB TION
1	150-2811-02	2 1	Bracket, Mounting - Carburetor	10	148-0597	1	Regulator, Natural Gas
2	148-1104	1	Carburetor	11	505-0754	1	Nipple, Pipe (3/4 NPT x 6.0)
3	520-1028	2	Stud (M8 x 1.25 x 48)	12	307-0312-01	1	Valve, Solenoid
4	870-2055	2	Nut, Lock - Flange	13	155-1256	1	Clamp, Muffler
			(M8 x 1.25)	14	526-2100	2	Washer, Flat (M8)
5	505-0002	1	Nipple, Pipe (1/2 NPT x 3.0)	15	821-6003-03	2	Screw, Hex Head (M8 x 25)
6	505-0021	1	Bushing, Reducer (3/4 NPT)	16	332-2634	1	Clamp, J
7	505-0132	2	Elbow, Pipe (90°) (3/4)	17	145-0724	2	Gasket, Carburetor
8	505-0085	1	Nipple, Pipe (3/4 NPT x 2.0)	18	517-0094	1	Plug, Hole
9	505-0102	1	Nipple, Close (3/4 x 1-1/4)				-

# Fuel System Propane Vapor



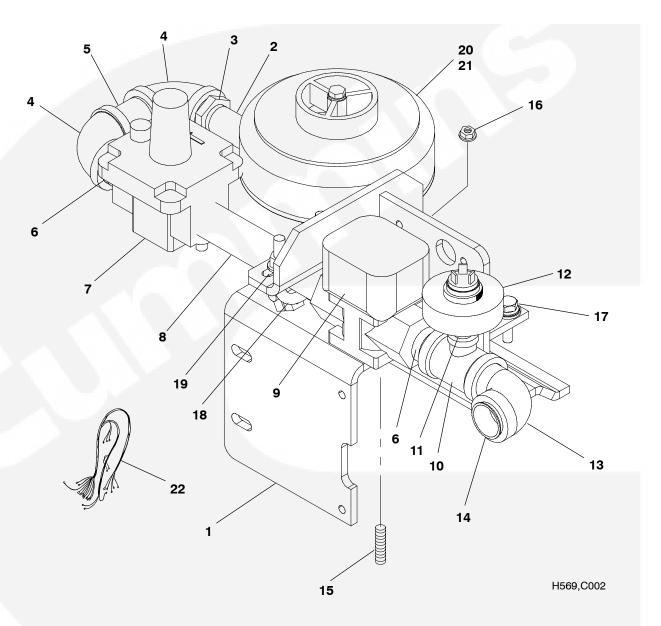
REF	PART	QTY	PART	REF	PART	QTY	PART
NO.	NO.	USED	DESCRIPTION	NO.	NO.	USED	DESCRIPTION
1	150-2811-02	2 1	Bracket, Mounting – Carburetor	10	505-0754	1	Nipple, Pipe (3/4 NPT x 6.0)
2	148–1104	1	Carburetor	11	307-0312-01	1	Valve, Solenoid
3	520-1028	2	Stud (M8 x 1.25 x 48)	12	148-0637	1	Regulator, LPG Vapor
4	870-2055	2	Nut, Lock - Flange	13	155-1256	1	Clamp, Muffler
			(M8 x 1.25)	14	526-2100	2	Washer, Flat (M8)
5	505-0002	1	Nipple, Pipe (1/2 NPT x 3.0)	15	821-6003-03	2	Screw, Hex Head (M8 x 25)
6	505-0021	1	Bushing, Reducer (3/4 NPT)	16	145-0724	2	Gasket, Carburetor
7	505-0132	2	Elbow, Pipe (90°) (3/4)	17	517-0094	1	Plug, Hole
8	505-0085	1	Nipple, Pipe (3/4 NPT x 2.0)	18	332-2634	1	Clamp, J
9	505-0102	1	Nipple, Close (3/4 x 1-1/4)				

# Fuel System Propane Liquid



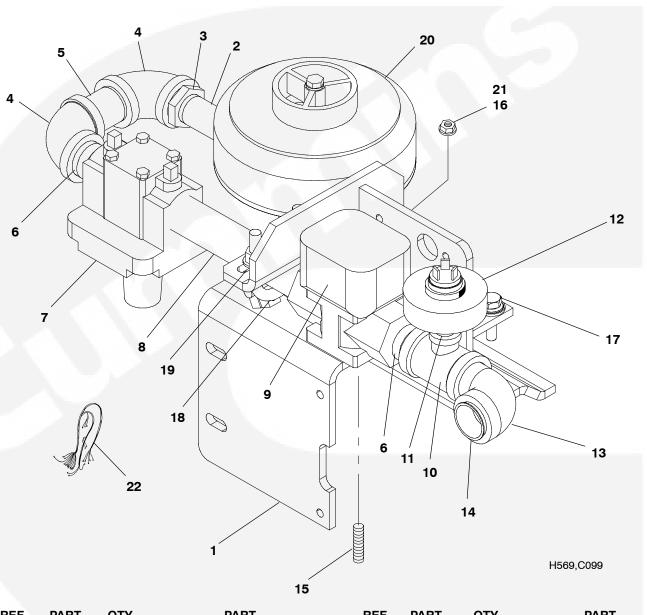
REF NO.		QTY USED	PART DESCRIPTION	REI NO.		QTY USED	PART DESCRIPTION
. 1	150-2811-02	1	Bracket, Mounting - Carburetor	14	503-0131	4	Clamp, Hose
2	148-1104	1	Carburetor	15	503-0386	-	Hose, Flex - Bulk (Order by the
3	520-1028	2	Stud (M8 x 1.25 x 48)				Foot - 4 Feet Required) (5/8")
4	870-2055	4	Nut, Lock - Flange	16	505-0106	1	Nipple, Short (1/2 x 1.5)
			(M8 x 1.25)	17	505-0158	1	Cap, Pipe (1/2)
5	505-0002	2	Nipple, Pipe (1/4" x 3)	18	526-0399-13	3 2	Washer, Flat (1/4)
6	505-0040	3	Elbow, Pipe – 90° (1/2)	19	149-2622	1	Bracket, Support
7	505-0099	1	Nipple, Pipe (1/4 x .88)	20	338-3654	1	Harness, LPG
8	505-0210	1	Nipple, Pipe (1/2 x 2)	21	503-0386	_	Hose, Flex - Bulk (Order by the
9	526-2100	2	Washer, Flat (M8)				Foot - 4 Feet Required) (5/8")
10	821-6003-03	4	Screw, Hex Head (M8 x 25)	22	145-0724	2	Gasket, Carburetor
11	148-0737	1	Regulator	23	332-2634	1	Clamp, J
12	307-0268-01	1	Valve, Solenoid	24	505-0078	1	Nipple, Pipe (1/2 x 2-1/2)
13	502-0942	2	Connector, Hose (90°)				,

# Fuel System Natural Gas With Low Fuel Pressure Warning Switch Begin Spec B



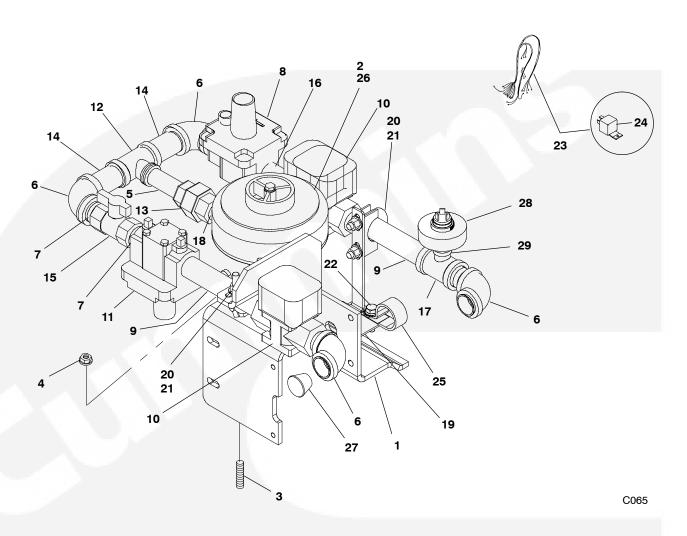
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REI NO.		QTY USED	PART DESCRIPTION
1	150-2811-02	2 1	Bracket, Governor	13	505-0051	1	Elbow, Street – 90° (3/4)
2	505-0002	1	Nipple, Pipe (1/2 x 3.00)	14	517-0094	1	Plug, Hole
3	505-0021	1	Bushing, Reducer (3/4 x 1/2)	15	520-1028	2	Stud (M8 x 1.25)
4	505-0132	2	Elbow, Pipe	16	870-2055	2	Nut, Lock - Flanged
5	505-0085	1	Nipple, Pipe (3/4 x 2.00)	17	821-6003-03	3 2	Screw, Hex Head (M8 x 1.25 x
6	505-0102	2	Nipple, Close (3/4)				25)
7	148-0597	1	Regulator, Natural Gas	18	155-1256	1	Clamp, Muffler (1.5")
8	505-0754	1	Nipple, Pipe (3/4 x 6.00)	19	526-2100	2	Washer, Flat (M8)
9	307-0312-0	1 1	Valve, Solenoid (12V)	20	148-1104	1	Carburetor
10	505-1496	1	Tee, Reducing	21	145-0724	2	Gasket, Carburetor
11	505-0007	1	Bushing (1/4 x 1/8)	22	338-3740	1	Harness, Fuel Alarm
12	309-0669	1	Switch, Pressure (12V)				

# Fuel System Propane Vapor With Low Fuel Pressure Warning Switch Begin Spec B



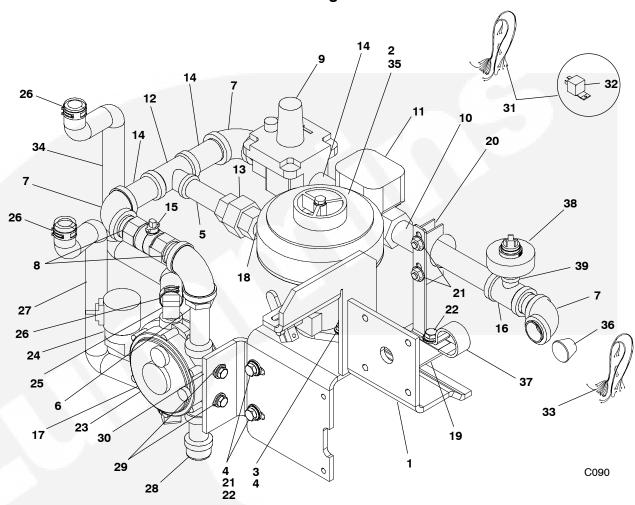
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
140.	140.	USLD	DESCRIPTION	140.	NO.	USLD	DESCRIPTION
1	150-2811-02	2 1	Bracket, Governor	13	505-0051	1	Elbow, Street – 90° (3/4)
2	505-0002	1	Nipple, Pipe (1/2 x 3.00)	14	505-0094	1	Plug, Hole
3	505-0021	1	Bushing, Reducer (3/4 x 1/2)	15	520-1028	2	Stud (M8 x 1.25)
4	505-0132	2	Elbow, Pipe	16	870-2055	2	Nut, Lock - Flanged
5	505-0085	1	Nipple, Pipe (3/4 x 2.00)	17	821-6003-0	3 2	Screw, Hex Head (M8 x 1.25 x
6	505-0102	2	Nipple, Close (3/4)				25)
7	148-0637	1	Regulator, LPG Vapor	18	155-1256	1	Clamp, Muffler (1.5")
8	505-0754	1	Nipple, Pipe (3/4 x 6.00)	19	526-2100	2	Washer, Flat (M8)
9	307-0312-0	1 1	Valve, Solenoid (12V)	20	148-1104	1	Carburetor
10	505-1496	1	Tee, Reducing	21	145-0724	2	Gasket, Carburetor
11	505-0007	1	Bushing (1/4 x 1/8)	22	338-3740	1	Harness, Fuel Alarm
12	309-0669	1	Switch, Pressure (12V)				

# Fuel System Natural Gas / Propane Vapor With Low Pressure Switch and Automatic Changeover



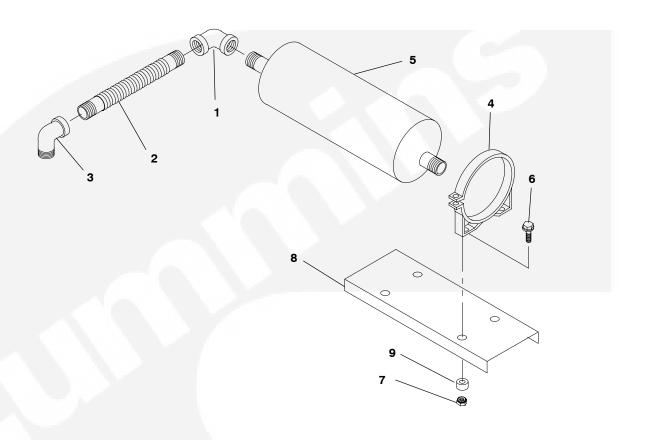
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	150-2811-02	2 1	Bracket, Mounting - Carburetor	17	505-1496	1	Tee, Reducing
2	148–1104	1	Carburetor	18	505-0210	1	Nipple, Pipe (1/2 NPT x 2.0)
3	520-1028	2	Stud (M8 x 1.25 x 48)	19	149-2617	1	Bracket, Support
4	870-2055	2	Nut, Lock - Flange	20	155-1256	2	Clamp, Muffler
			(M8 x 1.25)	21	526-2100	4	Washer, Flat (M8)
5	505-0002	1	Nipple, Pipe (1/2 x 3)	22	821-6003-03	2	Screw, Hex Head,
6	505-0132	4	Elbow, Pipe (90°) (3/4)				(M8 x 1.25 x 25)
7	505-0102	5	Nipple, Close (3/4 x 1-3/8)	23			Harness, Dual Fuel - Includes
8	148-0597	. 1	Regulator, Natural Gas				Relay
9	505-0754	2	Nipple, Pipe (3/4 NPT x 6.0)		338-3698	1	Spec A, B
10	307-0312-0	1 2	Valve, Solenoid		338-3816	1	Begin Spec C
11	148-0637	1	Regulator, LPG Vapor	24	307-2817-01	1	Relay (12 Volt) (K99)
12	505-0167	1	Tee, Reducing	25	332-2634	1	Clamp, J
13	505-0150	1	Union, Ground Joint (1/2 NPT)	26	145-0724	2	Gasket, Carburetor
14	505-0084	2	Nipple, Pipe (3/4 NPT x 2.5)	27	517-0094	2	Plug, Hole
15	504-0171	1	Valve (3/4)	28	309-0669-01	1	Switch, Low Pressure
16	505-0332	1	Nipple, Pipe (3/4 NPT x 3.0)	29	505-0007	1	Bushing, Reducer (1/4 x 1/8)

Fuel System
Natural Gas / Propane Liquid With Low Pressure Switch and Automatic
Changeover



REF	PART	QTY	PART	REF	PART	QTY	PART
NO.	NO.	USED	DESCRIPTION	NO.	NO.	USED	DESCRIPTION
1	150-2811-02	) 1	Bracket, Mounting - Carburetor	22	821-6003-03	4	Screw, Hex Head
2	148–1104	· i	Carburetor		021 0000 00	7	(M8 x 1.25 x 25)
3	520-1028	2	Stud (M8 x 1.25 x 48)	23	148-0737	1	Regulator
4	870-2055	4	Nut, Lock - Flange	24	307-0268-01	1	Valve, Solenoid
•	0,0 2000	·	(M8 x 1.25)	25	502-0942	2	Connector, Hose (90°)
5	505-0002	2	Nipple, Pipe (1/2 NPT x 3.0)	26	503-0131	4	Clamp, Hose
6	505-0021	1	Bushing, Reducer (3/4 NPT)	27	503-0386	1	Hose, Flex - Bulk (Order by the
7	505-0132	4	Elbow, Pipe (90°) (3/4")				Foot – 4 Feet Required) (5/8")
8	505-0102	4	Nipple, Close	28	505-0158	1	Cap, Pipe (1/2 NPT)
			(3/4 NPT x 1-3/8)	29	526-0399-13	2	Washer, Flat (1/4)
9	148-0597	1	Regulator, Natural Gas	30	149-2622	1	Bracket, Support
10	505-0754	1	Nipple, Pipe (3/4 NPT x 6.0)	31			Harness, Dual Fuel - Includes
11	307-0312-01	1 1	Valve, Solenoid				Relay
12	505-0167	- 1	Tee, Reducing		338-3698	1	Spec A, B
13	505-0150	1	Union, Ground Joint		338-3816	1	Begin Spec C
			(1/2 NPT)	32	307-2817-01	1	Relay (12 Volt) (K99)
14	505-0084	3	Nipple, Pipe (3/4 NPT x 2.5)	33	338-3654	1	Harness, LPG
15	504-0171	1	Valve (3/4)	34	503-0386	1	Hose, Flex - Bulk (Order by the
16	505-1496	1	Tee, Reducing				Foot – 4 Feet Required) (5/8")
17	505-0099	1	Nipple, Pipe (1/4 NPT x .88)	35	145-0724	2	Gasket, Carburetor
18	505-0210	2	Nipple, Pipe (1/2 NPT x 2.0)	36	517-0094	1	Plug, Hole
19	149-2617	1	Bracket, Support	37	332-2634	1	Clamp, J
20	155–1256	1	Clamp, Muffler	38	309-0669-01	1	Switch, Low Pressure
21	526-2100	4	Washer, Flat (M8)	39	505-0007	1	Bushing, Reducer (1/4 x 1/8)

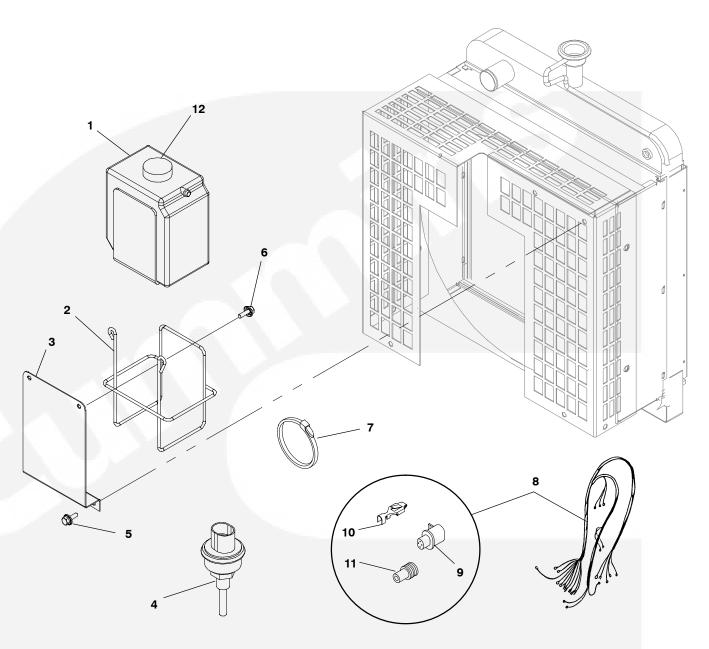
#### Muffler Housed Sets



A076

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	505-0043	1	Elbow, 90° (1-1/2")	6	821-2050	4	Screw, Lock
2	155-0927	1	Tube, Exhaust				(M8 x 1.25 x 40)
3	505-0462	1	Elbow, Street 90°	7	870-2055	4	Nut, Lock (M8 x 1.25)
			(1-1/2")	8	155-1924	1	Shield, Heat - Muffler
4	140-0078	2	Bracket, Air Cleaner	9	155-1926	4	Spacer, Muffler
5	155-0360-01	1	Muffler, Critical				•

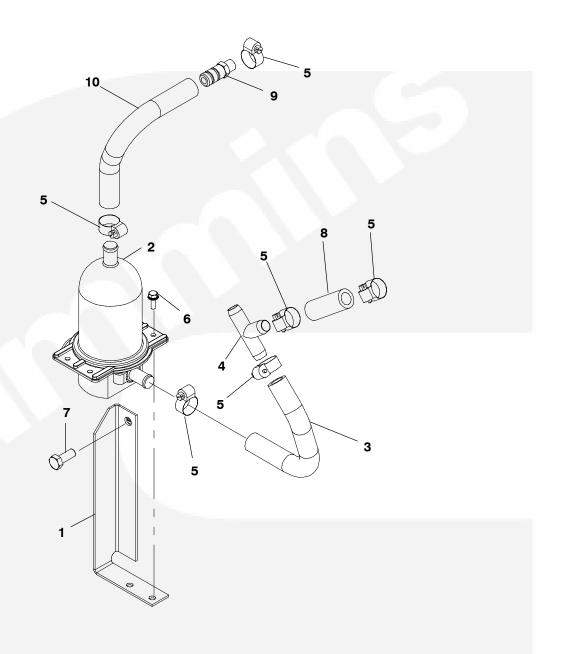
### **Low Coolant Level Switch**



H389,H527

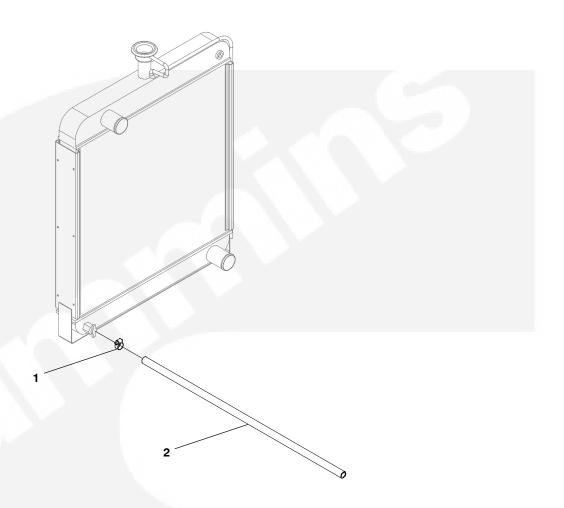
REF NO.		QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130–3570	1	Tank, Coolant	8	338-3594	1	Harness, Pigtail (Includes
2	130–3571	1	Hanger, Tank				Parts Marked *)
3	130-4846	1	Bracket, Coolant Tank	9	323-1765	1	*Housing, Connector (4 Pin)
4	193-0468	1	Switch, Low Coolant Level	10	323-1709	4	*Socket, Contact
			(S7)	11	323-1708	4	*Seal, Cable
5	821-6003-03	2	Screw, Hex Head (M8 x 1.25 x 20)	12	130–3572	1	Cap, Tank
6	821–2034	2	Screw, Self-Locking – Flange Head (M6 x 1 x 20)	* – F	arts Included	in 338–35	594 Pigtail Harness
7	332–1389	A/R	Tie, Cable				-

### **Coolant Heater**



REF NO.		QTY USED	PART DESCRIPTION	REI NO		QTY USED	PART DESCRIPTION
1 2	333-0624 333-0588-01	1	Bracket, Heater Heater, Engine Coolant 120 Volt	7	821–2060	1	Screw, Self-Locking – Hex Washer Head (M10 x 1.5 x 20)
3	333-0588-02 503-0386	1 -	208/240 Volt Hose, Engine Coolant – Bulk (Order by the Foot – 1 Foot Reguired)	9	503-0386 502-0613	- 1	Hose, Engine Coolant – Bulk (Order by the Foot – 1 Foot Required) Adapter, Hose
4 5 6	502-0870 503-0183 821-6002-03	1 6	Tee Clamp, Hose Screw, Hex Head (M6 x 1 x 16)	10	503-0386	-	Hose, Engine Coolant – Bulk (Order by the Foot – 1 Foot Required)

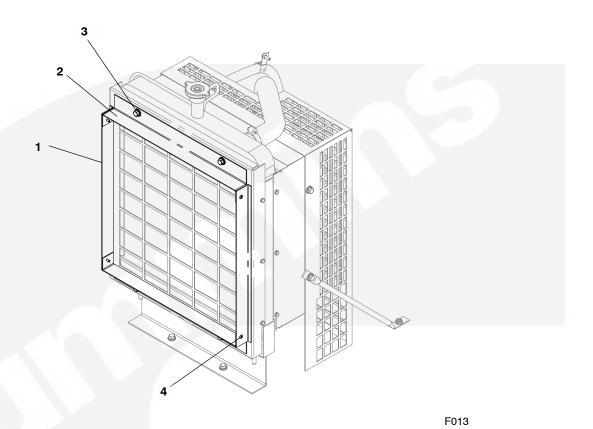
### **Radiator Drain**



E089

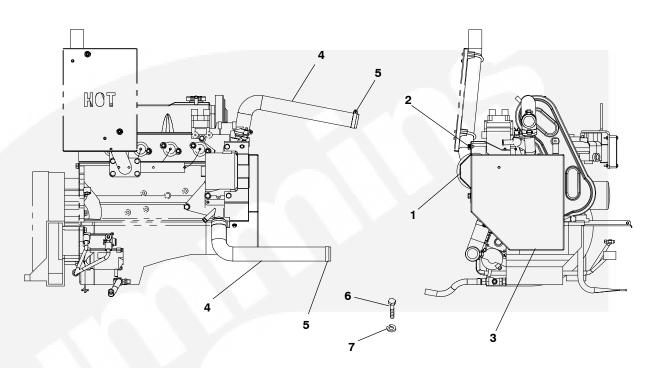
REF	PART	QTY	PART	REF	PART	QTY	PART
NO.	NO.	USED	DESCRIPTION	NO.	NO.	USED	DESCRIPTION
1	503-0685	1	Clamp, Hose	2	503-1274	1	Hose, Radiator Drain (24")

# **Duct Adapter**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REI NO			QTY USED	PART DESCRIPTION
1	130–4835 130–4834	2	Adapter, Duct - Side	3	821-6	6003-02	4	Screw, Hex Head SEMS
2	130-4834	2	Adapter, Duct – Top and Bottom	4	818-0	0231-02	4	(M8 x 1.25 x 20) Rivet, Pop

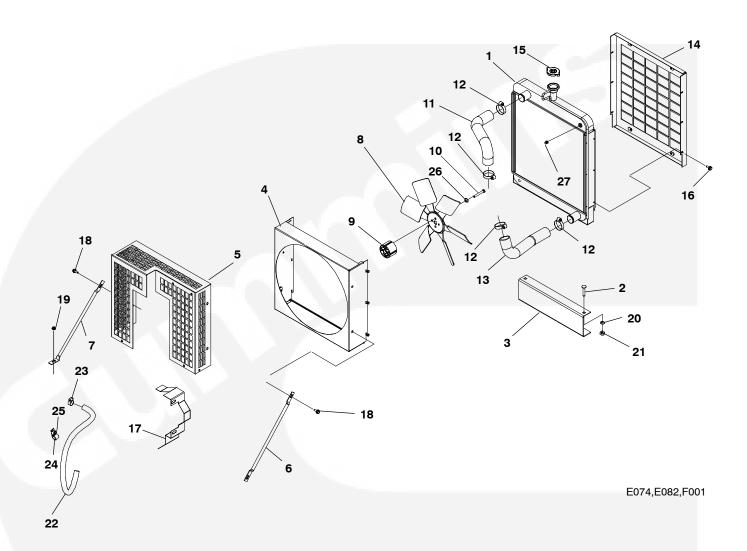
### **Remote Radiator**



E043

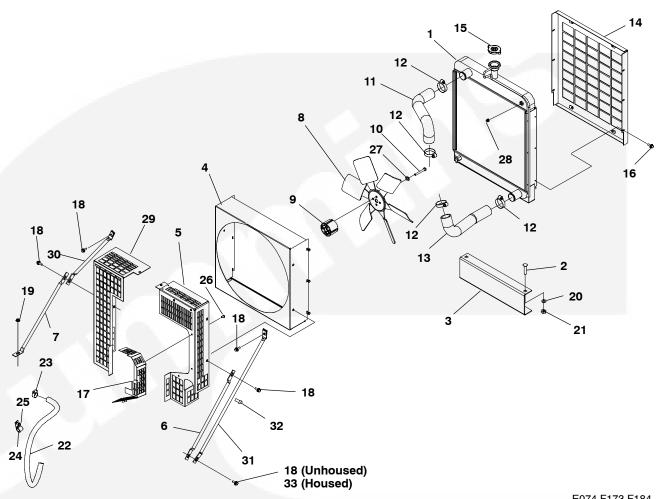
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	191-2268-02	2 1	Guard, Alternator Belt	5	503-1138	4	Clamp, Hose
2	821-2032	2	Screw, Lock (M6 x 1 x 12)	6	800-2056	4	Screw, Cap - Hex Head
3	191-2263	1	Guard, Belt				(M8 x 1.25 x 16)
4	503-0869	2	Hose, Radiator	7	850-2008	4	Washer, Lock (M8)

# Radiator Spec A



REF NO.		QTY USED	PART DESCRIPTION	REF NO.		QTY USED	PART DESCRIPTION
1	130-3552	1	Radiator	16			Screw, Hex Head - Thread
2	816-0152	2	Bolt, Carriage (3/8 x 2)				Cutting (#10-32 x 3/8)
3	130-4796	1	Mount, Radiator		815-0194	6	Housed Sets
4	130-4856	1	Shroud, Fan		815-0194	12	Unhoused Sets
5	130-4839	1	Guard, Fan	17	191-2268-01	1	Guard, Alternator Belt
6	130-1793	1	Brace, Radiator (LH)	18	821-6003-02	7	Screw, Hex Head
7	130-1798	1	Brace, Radiator (RH)				(M8 x 1.25 x 20)
8	130-4792	1	Fan, Engine	19	870-0257	1	Nut, Self-Locking (5/16–18)
9	130-4770-03	1	Spacer, Fan	20	526-0141	2	Washer, Flat (15/32)
10	800-2071	4	Screw, Hex Head Cap	21	870-0281	2	Nut, Hex (3/8-16)
			(M8 x 1.25 x 90)	22	503-0386	-	Hose, Engine Coolant - Bulk
11	503-2085	1	Hose, Radiator Inlet (Top)				(Order by the Foot – 3 Feet
12	503-0429	4	Clamp, Hose				Required)
13	503-2092	1	Hose, Radiator Outlet (Bottom)	23	503-0183	2	Clamp, Hose
14	130-4833	1	Guard, Radiator	24	332-2634	1	Clamp, J
			(Unhoused Sets only)	25	821-2033	1	Screw, Flange (M6 x 1 x 12)
15	130-3721-01	1	Cap, Radiator – 15 PSI	26	850-2008	4	Washer, Lock (M8)
				27	502-0153	1	Plug, 1/4" Hex Head Pipe

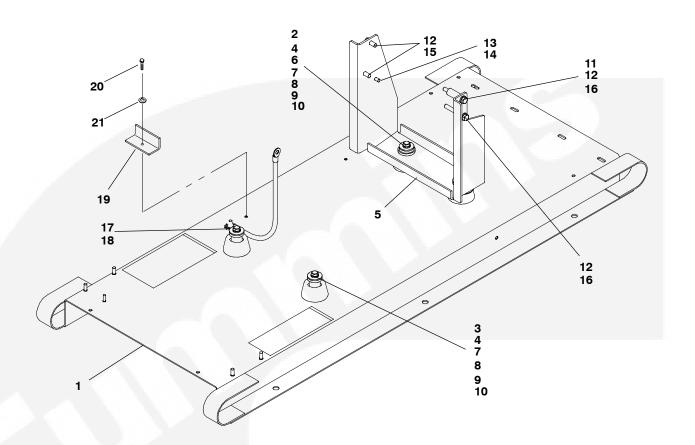
# Radiator Begin Spec B



E074,F173,F184

REF NO.		QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-3552	1	Radiator	17	191-2276-02	. 1	Guard, Alternator Belt
2	816-0152	2	Bolt, Carriage (3/8-16 x 2)	18			Screw, Hex Head
3	130-4796	1	Mount, Radiator				(M8 x 1.25 x 20)
4	130-5003-02	. 1	Shroud, Fan		821-6003-02	7	`Housed Sets ´
5	130-4959-02	1	Guard, Fan (LH)		821-6003-02	8	Unhoused Sets
6	130-1793	1	Brace, Radiator (LH)	19	870-0257	1	Nut, Self-Locking (5/16-18)
7	130-1798	1	Brace, Radiator (RH)	20	526-0141	2	Washer, Flat (15/32)
8	130-4792	1	Fan, Engine	21	870-0281	2	Nut, Hex (3/8-16)
9	130-4770-03	1	Spacer, Fan	22	503-2185-01	1	Hose, Engine Coolant
10	800-2071	4	Screw, Cap - Hex Head	23	503-0183	2	Clamp, Hose
			(M8 x 1.25 x 90)	24	332-2634	1	Clamp, J
11	503-2085	1	Hose, Radiator Inlet (Top)	25	821-2033	1	Screw, Flange (M6 x 1 x 12)
12	503-0429	4	Clamp, Hose	26	818-0231-02	2	Rivet, Pop (3/16)
13	503-2092	1	Hose, Radiator Outlet (Bottom)	27	850-2008	4	Washer, Lock (M8)
14	130-4833	1	Guard, Radiator	28	502-0153	1	Plug, 1/4" Hex Head Pipe
			(Unhoused Sets)	29	130-4958-02	1	Guard, Fan (RH)
15	130-3721-01	1	Cap, Radiator – 15 PSI	30	130-5116-02	1	Brace, Radiator
16			Screw, Hex Head	31	130-5117-02	1	Brace, Radiator
			(M8 x 1.25 x 20)	32	503-0977	1	Clamp
	815-0194	6	` Housed Sets ´	33	821-6007-02	1	Screw, Hex Head (M8 x 1.25 >
	815-0194	12	Unhoused Sets				20)

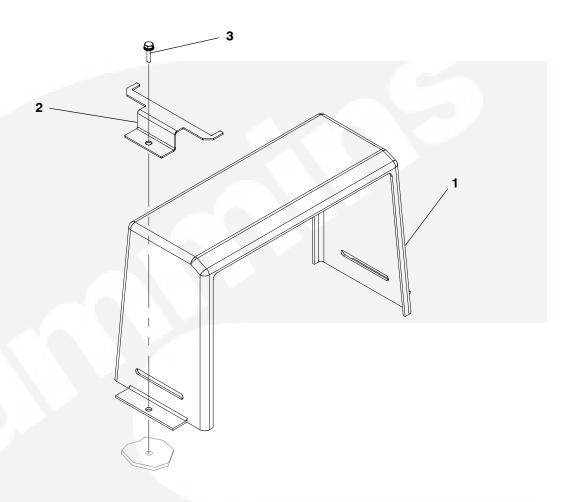
# Skid



F179,C002,C099,C053,C065,C090

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			D 0111			_	
1	100 1051		Base, Skid	10	800-0081	4	Screw, Cap – Hex Head
	403–4254	. 1	Spec A-D				(7/16–14 x 3.5)
	403-5041-01		Begin Spec E	11	403–3795	1	Spacer, Engine Support
2	402-0285	2	Cushion, Vibration Isolation	12	526-0174	4	Washer, Flat (3/8)
			(Engine End)	13	526-0122	1	Washer, Flat (5/16)
			(2-3/4 x 2-11/32)	14	800-2057	1	Screw, Cap - Hex Head
3	402-0286	2	Cushion, Vibration Isolation				(M8 x 1.25 x 20)
			(Generator End)	15	800-2086	2	Screw, Cap - Hex Head (M10 x
			$(2-3/4 \times 2-11/32)$				1.5 x 25.4)
4	402-0290	4	Bushing, Spacer	16	800-2095	2	Screw, Cap - Hex Head (M10 x
5	403-4255	1	Bracket, Front – Engine				1.5 x 70)
			Mounting	17	856-0009	2	Washer, Lock - EIT (5/16)
6	403-1830	2	Spacer	18	870-0257	1	Nut, Lock (5/16-18)
7	402-0282	4	Cushion, Mounting – Rubber	19	416-0961	2	Battery, Hold Down - Spec
			$(1-1/2 \times 1/4)$				A-D
8	526-0014	4	Washer, Flat (7/16)	20	800-2040	2	Screw, Cap - Hex Head
9	850-0055	4	Washer, Lock (7/16)				(M6 x 1 x 50) - Spec A-D
			. (,,	21	850-2056	2	Washer, Lock (M6) - Spec A-D

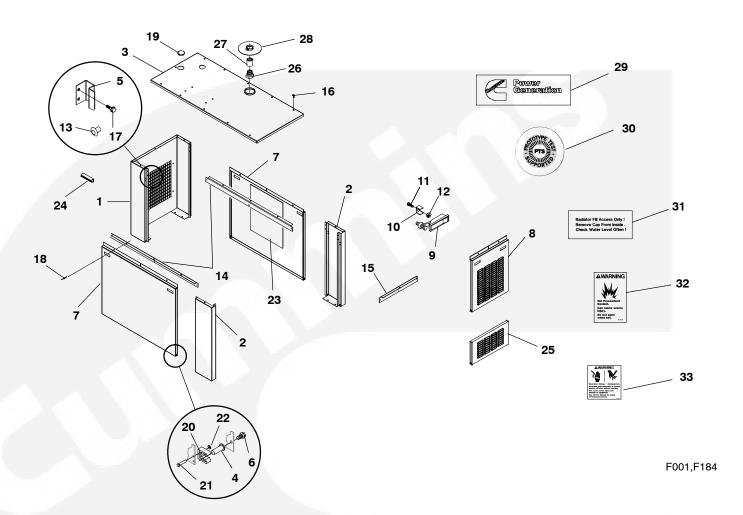
# Battery Cover Begin Spec E



REF	PART QTY	PART	REF PA		PART
NO.	NO. USED	DESCRIPTION	NO. N		DESCRIPTION
1 2	416–1164 1 416–1165–02 2	Cover, Battery Hold Down, Battery	3 821–6	002-04 2	Screw, Hex Head (M6 x 1 x 20)

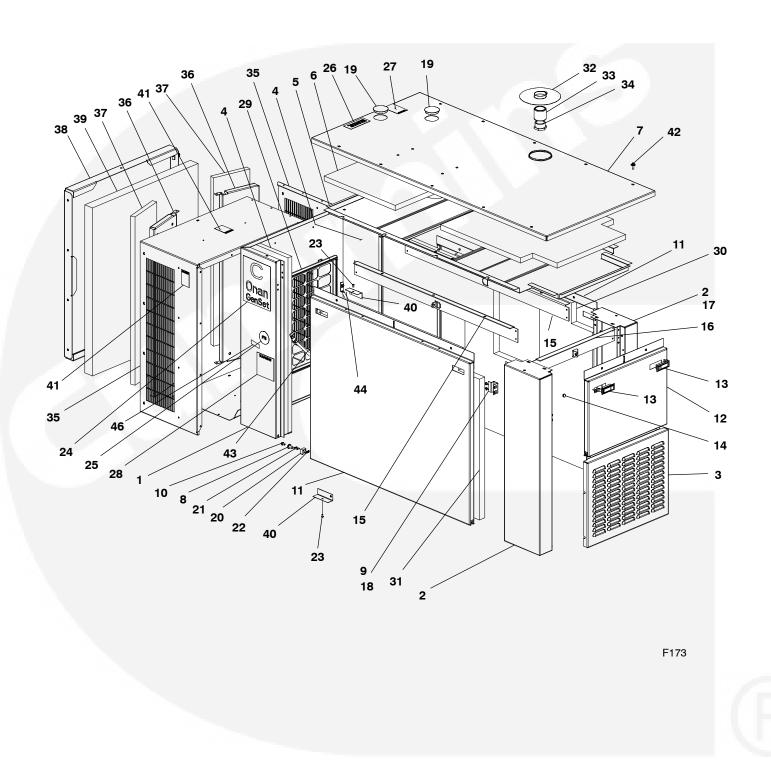


# Housing Standard Weather Protective



REF NO.		QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	405-6097	1	Panel, Front - Housing	17	821-6001-02	12	Screw, Hex Head
2	405-6167	2	Post, Corner				(M5 x .8 x 12)
3	405-6168	1	Roof, Housing	18	818-0231-02	12	Rivet, Pop
4	870-0258	6	Nut, Weld Stud	19	517-0138-09	2	Plug, Hole
5	405-6164	6	Catch, Housing Door	20	405-1872	6	Clip, Door
6	821-0010	6	Screw, Lock Head	21	818-0150	12	Rivet, Drive
			(1/4-20 x 1/2)	22	526-0003	12	Washer, Flat (3/16)
7	405-6162	2	Door, Housing (Side)	23	128-0154-02	1	Insulation, Foam
8	405-6163	1	Door, Housing (Rear)	24	895-0387	4	Seal, Weather (18.5")
9	406-0615	6	Latch, Door	25	405-6202	1	Panel, Housing
10	406-0614	6	Bracket, Door	26	505-0025	1	Bushing, Reducer
11	812-0084	6	Screw, Machine - Round Head				(1-1/2 x 1-1/4)
			(#8-32 x 1)	27	505-0032	1	Coupling, Pipe (1-1/2)
12	870-0221	6	Nut (#8–32)	28	405-1889	1	Shield, Rain
13	405-4932	6	Bumper, Housing	29	098-7902-02	2	Label, Logo
14	405-6169	2	Bracket, Housing	30	098-4500	2	Label, Prototype Tested
15	405-6170	1	Bracket, Housing	31	098-5429	1	Label, Coolant Fill
16	821-6003-02	22	Screw, Hex Head	32	098-4730	1	Label, Warning
			(M8 x 1.25 x 20)	33	098–4732	1	Label, Warning

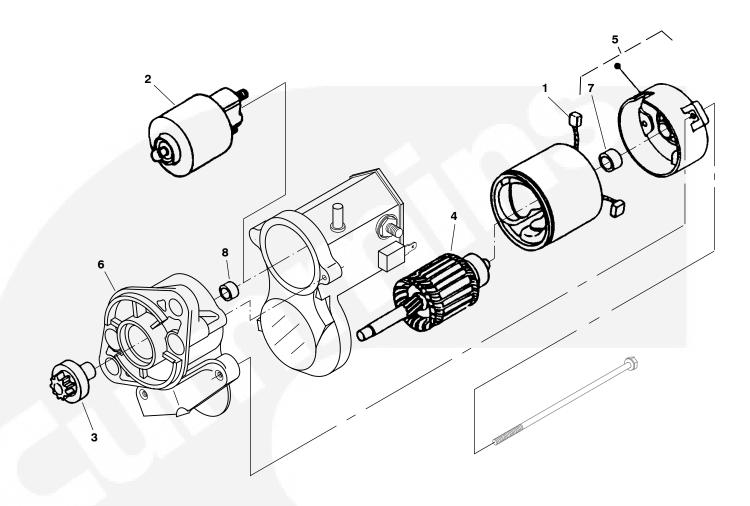
# Housing Quiet Site Second Stage Begin Spec B



#### Housing Quiet Site Second Stage Begin Spec B

REF NO.		QTY JSED	PART DESCRIPTION	REF NO.		QTY USED	PART DESCRIPTION
1	405-6097	1	Panel, Front - Housing	25	098-4500	2	Label, Prototype
2	405-6167	2	Post, Corner	26	098-5429	1	Label, Coolant Fill
3	405-6202	1	Panel, Housing	27	098-4730	1	Label, Warning
4	405-6195	2	Panel, Insulation	28	098-4732	2	Label, Warning
5	405-6201-02	1	Support, Insulation	29	895-0387	4	Seal, Weather
6	405-6199	1	Panel, Insulation	30	405-6196	1	Panel, Insulation
7	405-6168	1	Roof, Housing	31	405-6197	1	Panel, Insulation
8	870-0258	6	Nut, Weld	32	405-1889	1	Shield, Rain
9	405-6164	6	Catch, Housing Door	33	505-0032	1	Coupling, Pipe
10	821-0010	6	Screw, Self-Locking – Hex Washer Head (1/4–20 x .50)	34	505-0025	1	Bushing, Reducer (1-1/4 x 1-1/2)
11	405-6162	2	Door, Housing	35	405-6229-02	2	Duct, Air Outlet
12	405-6163	1	Door, Housing	36	405-6231-02	2	Duct, Air Outlet
13	406-0615	6	Latch, Door	37	405-6236	2	Panel, Insulation
14	405-4932	6	Bumper, Housing	38	405-6228-02	1	Duct, Air Outlet
15	405-6169	2	Bracket, Housing	39	405-6235	1	Panel, Insulation
16	405-6170	1	Bracket, Housing	40	405-6200-02	12	Support, Insulation
17	821-6003-02	14	Screw, Hex Head (M8 x 1.25 x	41	098-7451	3	Label, Caution
			20)	42	821-6007-02	20	Screw, Hex Head (M8 x 1.25 x
18	821-6001-02	12	Screw, Hex Head (M5 x 0.8 x				20)
			12)	43	130-5116-02	1	Brace, Radiator
19	517-0138-09	2	Plug, Hole	44	130-5117-02	1	Brace, Radiator
20 21 22	405–1872 818–0150 526–0003	6 12 12	Clip, Door Rivet, Drive (5/32) Washer, Flat (3/16)	45	503-0977	1	Clamp (Used with Item 44 and Radiator Brace – Not Illustrated)
23 24	818-0231-02 098-7902-02	58 2	Rivet, Pop Label, Logo	46	098-7868	1	Label

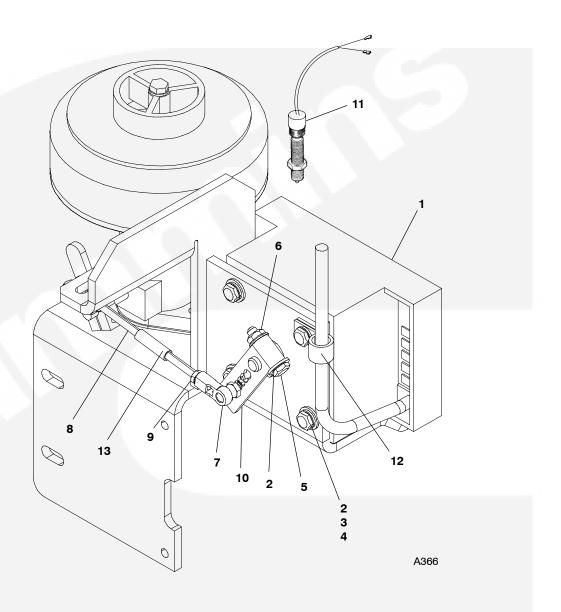
#### Starter



CP01

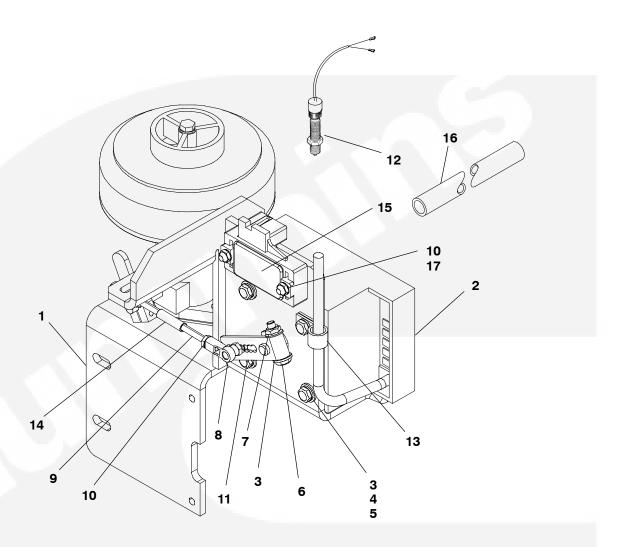
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	191-2213	1	Starter - Complete (1.4kW) (B1)	5	191-2219	1	Frame, Commutator End
1	191-2215	1	Kit, Starter Brush	6	191-2220	1	Housing
2	191-2216	1	Switch	7	191-2221	1	Bearing, Commutator End
3	191-2217	1	Clutch	8	191-2222	1	Bearing, Pinion End
4	191–2218	1	Armature				-

#### Governor Spec A-C



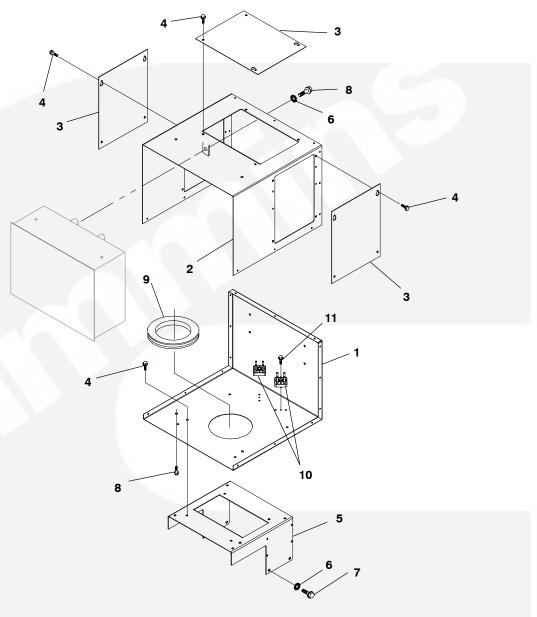
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REI NO.	PART NO.	QTY USED	PART DESCRIPTION
1	150-2692-01	1	Governor (Includes Lever)	6	870-0212	1	Nut, Locking (1/4-20)
			(A12)	7	150-0939	2	Joint, Ball
2	526-0018	5	Washer, Flat (1/4)	8	150-2694	1	Stud, Governor Link
3	850-0040	4	Washer, Split - Lock (1/4)	9	870-0131	4	Nut, W/ET (#10-32)
4	800-0602	4	Screw, Cap - Hex Head	10	150-2620	1	Lever, Governor
			(1/4-28 x .75)	11	150-2651	1	Pickup, Magnetic (P1)
5	800-0008	1	Screw, Cap – Hex Head	12	332-1554	1	Clamp, Loop (Insulated)
			(1/4-20 x 1_1/4)	13	150-2550	1	Spring

#### Governor Begin Spec D



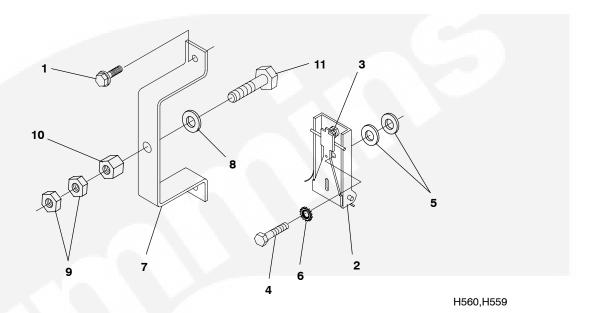
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	150-2811-02	1	Bracket, Governor	9	150-2694	1	Stud, Governor Link
2	150-2692-01	1	Governor (Includes Lever)	10	870-0131	6	Nut, W/ET (#10-32)
			(A12)	11	150-2620	1	Lever, Governor
3	526-0018	3	Washer, Flat (1/4)	12	150-2651	1	Pickup, Magnetic (P1)
4	850-0040	4	Washer, Split - Lock (1/4)	13	332-1554	1	Clamp, Loop (Insulated)
5	800-0602	4	Screw, Cap - Hex Head	14	150-2550	1	Spring
			(1/4-28 x .75)	15	193-0545	1	Map, Sensor – Ignition
6	800-0008	1	Screw, Cap - Hex Head	16	503-2159-0	1 1	Hose, Vacuum
			(1/4-20 x 1_1/4)	17	813-0107	2	Screw, Machine - Round Head
7	870-0212	1	Nut, Locking (1/4–20)				(#10-32 x 1-1/4)
8	150-0939	2	Joint, Ball				

#### Control Housing Detector Control



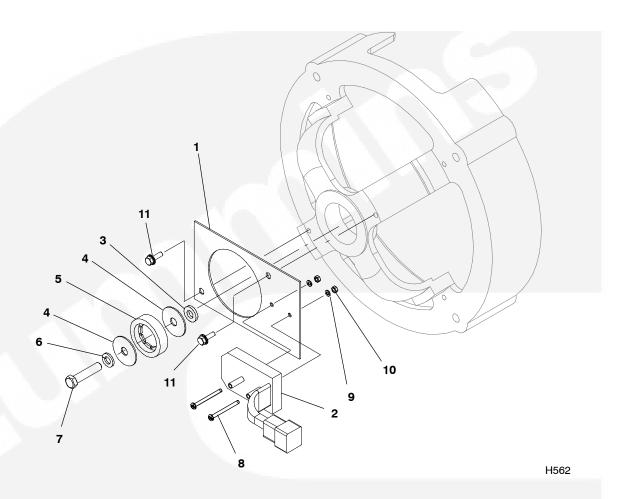
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.		QTY USED	PART DESCRIPTION
1 2	319–3313 319–3312	1	Panel, Control Housing Panel, Control Housing Top	7	815-0236	4	Screw, Thread Cutting (5/16–18 x 5/8)
3	319–3316	2	Cover, Control Housing Sets W/Circuit Breaker	8	821-0014	4	Screw, Locking (5/16–18 x 1/2)
4	319–3316	3	Sets W/O Circuit Breaker Screw, Hex Head	9	508-0305-02	_	Edging – Bulk (Order By The Foot – 1 Foot Required)
			(M6 x 1 x 16)	10	332-3249	2	Block, Terminal
	821-6002-03 821-6002-03		Sets W/Circuit Breaker Sets W/O Circuit Breaker	11	821-6001-03	2	Screw, Hex Head (M5 x 0.8 x 16)
5	021 0002 00	20	Bracket, Control Saddle	12	856-0006	1	Washer, Lock - W/EIT (1/4) -
	405–6098	1	Spec A-C				Used With Engine Harness
	319-4970-02	. 1	Begin Spec D				(Not Illustrated)
6	856-0008	6	Washer, Lock – W/IT (5/16)				

#### Overspeed Switch Detector Control



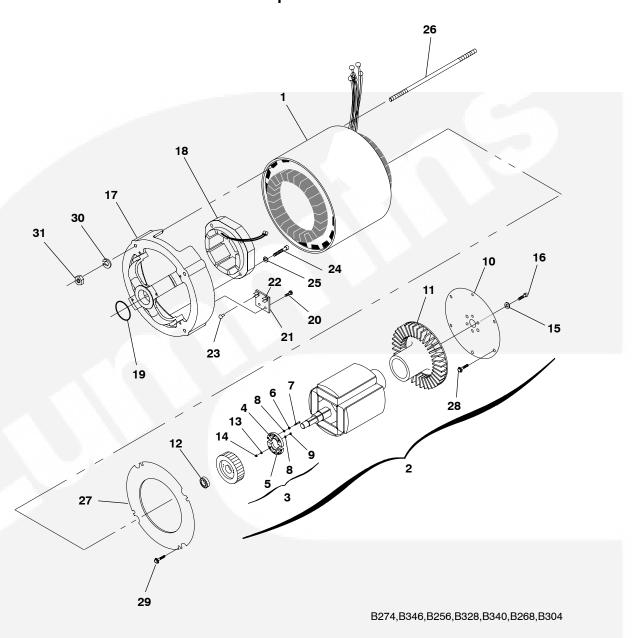
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	2	Screw, Lock (1/4-20 x 1/2")	6	856-0010	1	Washer, Lock - EIT (3/8")
2	150-0716	1	Switch, Overspeed	7	150-1445	1	Bracket, Overspeed Switch
3	815-0823	1	Screw, Cap - Hex Head (8-32	8	853-0013	1	Washer, Lock - ET (1/4")
			x 3/8")	9	862-0001	2	Nut, Hex (1/4-20)
4	800-0051	1	Screw, Cap - Hex Head	10	870-0250	1	Nut, Insulation (1/4-20)
			(3/8-16 x 1-1/4")	11	150-0723	1	Point, Overspeed
5	526-0077	2	Washer, Flat (13/32)				

# Electronic Overspeed 2-Wire Control



REF		QTY	PART	REF	PART	QTY	PART
NO.	NO.	USED	DESCRIPTION	NO.	NO.	USED	DESCRIPTION
1	319-3384	1	Bracket, Overspeed	8	815-0865-13	2	Screw, Pan Head –Slotted (M4
2	300–4324	1	Board, Printed Circuit – Overspeed	9	850-2004	2	x 45) Washer, Lock – Spring (M4)
3	526-0077	1	Washer, Flat (3/8)	10	860-2005	2	Nut, Hex (M4)
4	526-0124	2	Washer, Flat (3/8)	11	821-5002-04	2	Screw, Hex Head
5	166-0767	1	Rotor, Ignition				(1/4-20 x 5/8)
6	850-0050	1	Washer, Lock - Spring (3/8)				
7	800-0051	1	Screw, Cap – Hex Head (3/8–16 x 1.25)				

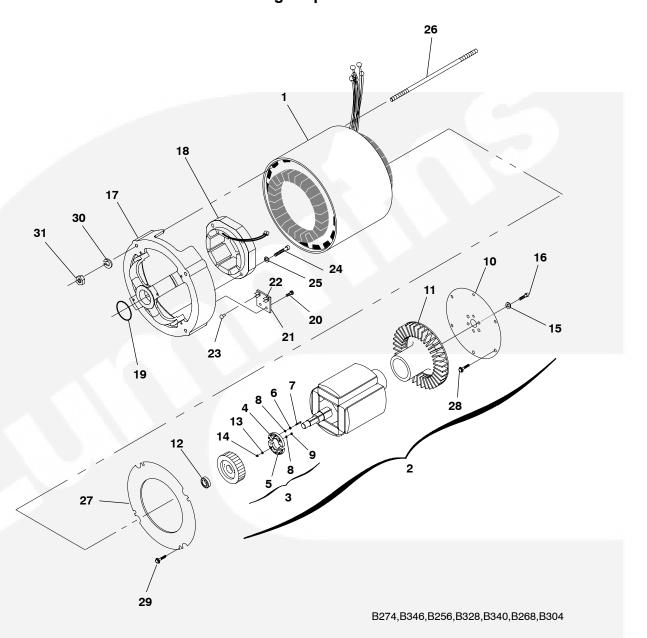
#### Generator Spec A-D



#### Generator Spec A-D

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	110.	JULD					
1			Stator, Generator	17	211-0256-02	1	Bell, End
	220-4564-06	3 1	4 Lead	18	220-2009	1	Stator, Exciter
	220-4565-06	3 1	6 Lead	19	509-0094	1	Seal, O-Ring
	220-4563-06	3 1	12 Lead	20	815–0194	2	Screw, Hex Head - Thread
	220-4563-07	7 1	12 Lead, Full Output on				Cutting – W/ET (#10–32 x
			Single Phase				3/8)
2			Rotor Assembly, Generator	21	232-2417	1	Board, Connection
			(Includes parts marked *)	22	332-1355	2	Terminal, Tab
	201-3573-06	3 1	149mm Stack Length	23	818-0006	2	Rivet
	201-3573-07	7 1	181mm Stack Length	24	802-0038	4	Screw, Cap - Socket Head
3	201-2151	1	* Rotor Assembly, Exciter				(1/4-20 x 1.5)
			(Includes Parts Marked #)	25	850-0040	4	Washer, Lock (1/4)
4	358-0069	1	*# Rectifier Assembly -	26			Stud
			Positive		520-0799	4	149mm Stack Length
5	358-0070	1	*# Rectifier Assembly - Negative		520-0800	4	181mm Stack Length
6	853-0008	4	*# Washer, Lock - ET (#10)	27	234-0519	1	Baffle, Air
7	813-0100	4	*# Screw, Round Head -	28	805-0015	6	Bolt, Place
			Machined (#10-32 UNF x				(.38-16 UNC x .75)
			1/2)	29	821-0010	4	Screw, Lock
8	526-0008	10	*# Washer, Flat (#10)				(.25-20 UNC x .50)
9	870-0131	6	*# Nut, Hex - W/ET (#10-32)	30	850-0114-07	4	Washer, Lock (.38)
10	232-2826	A/R	* Disk, Rotor Drive	31	862-0026-07	' 4	Nut, Hex (.38-16)
11	205-0258	1	* Fan, Generator				,
12	510-0112	1	* Bearing, Ball				
13	526-0399-11	2	* Washer, Flat (#10)				
14	870-0131-01	2	* Nut, Hex - W/ET (#10)	*	Parts Included	in Genera	ator Rotor Assembly
15	526-0399-42	2 6	* Washer, Flat (.38 Hardened)				•
16	800-0519	6	* Screw, Cap - Hex Head	#	Parts Included	in Exciter	Rotor Assembly
			(.375-16 x .75) (Special)				•

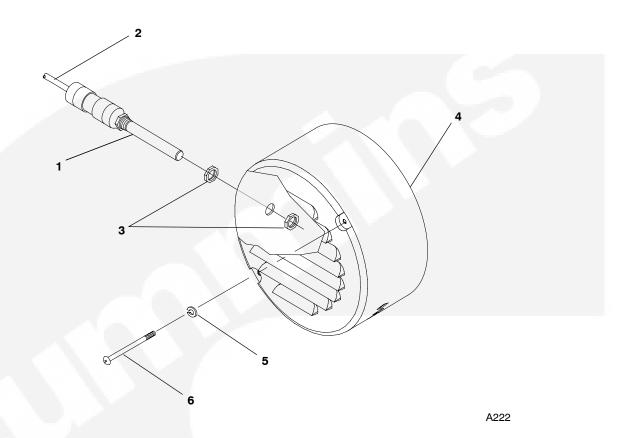
#### Generator Begin Spec E



#### Generator Begin Spec E

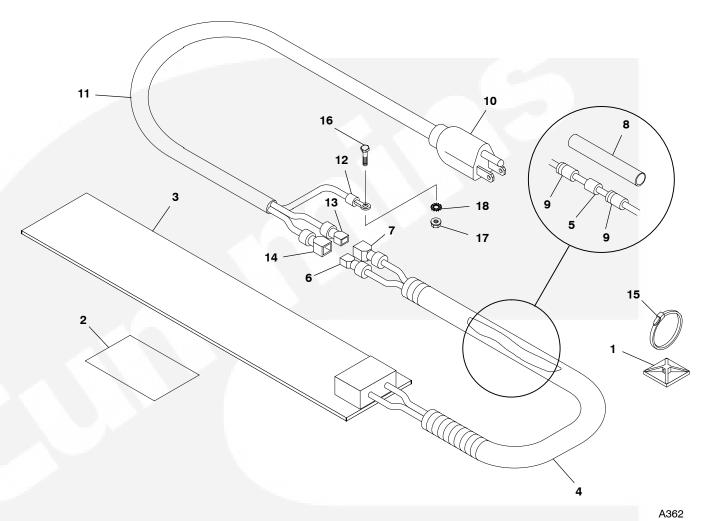
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Stator, Generator	17	211-0256-02	1	Bell, End
-	220-4614-06	6 1	4 Lead	18	220-2309	1	Stator, Exciter
	220-4615-06	6 1	6 Lead	19	509-0094	1_	Seal, O-Ring
	220-4613-06		12 Lead	20	815-0194	2	Screw, Hex Head - Thread
	220-4613-07	7 1	12 Lead, Full Output on Single Phase				Cutting – W/ET (#10–32 x 3/8)
2			Rotor Assembly, Generator	21	232-2417	1	Board, Connection
_			(Includes parts marked *)	22	332-1355	2	Terminal, Tab
	201-3602-06	6 1	149mm Stack Length	23	818-0006	2	Rivet
	201-3602-07		181mm Stack Length	24	802-0040-01		Screw, Cap - Socket Head
3	201-3515-02		* Rotor Assembly, Exciter				(1/4-20 x 2)
		_ •	(Includes Parts Marked #)	25	850-0114-05	4	Washer, Lock (1/4)
4	358-0069	1	*# Rectifier Assembly - Positive	26			Stud
5	358-0070	1	*# Rectifier Assembly - Negative		520-0799	4	149mm Stack Length
6	853-0008	4	*# Washer, Lock - ET (#10)		520-0800	4	181mm Stack Length
7	813-0100	4	*# Screw, Round Head -	27	234-0519	1	Baffle, Air
			Machined (#10-32 UNF x	28	805-0015	6	Bolt, Place (.38-16 UNC x .75)
8	526-0008	10	1/2) *# Washer, Flat (#10)	29	821-0010	4	Screw, Lock (.25–20 UNC x .50)
9	870-0131	6	*# Nut, Hex – W/ET (#10–32)	30	850-0114-07	4	Washer, Lock (.38)
10	232-2826	A/R	* Disk, Rotor Drive	31	862-0026-07		Nut, Hex (.38–16)
11	205-0258	1	* Fan, Generator	01	002 0020 07	7	14dt, 11ex (.00 10)
12	510-0112	1	* Bearing, Ball				
13	526-0008	2	* Washer, Flat (#10)				
14	870-0131	2	* Nut, Hex – W/ET (#10)	*	Parts Included	in Genera	ator Rotor Assembly
15	526-0399-42		* Washer, Flat (.38 Hardened)				
16	800-0519	6	* Screw, Cap – Hex Head (.375–16 x .75) (Special)	#	Parts Included	in Excite	Rotor Assembly

#### **Generator Heater**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	333-0184	1	Heater, Generator (Includes	5	850-0040	2	Washer, Lock - Split (1/4)
			Heater Cord)	6	812-0167	2	Screw, Round Head
2	333-0228	1	Cord, Heater				(1/4-20 x 6")
3	331-0041	2	Nut, Lock (1/2)				· · ·
4			Cover, End Bell				
	234-0993	1	Sets With Generator Heater				
	234-0498	1	Sets Without Generator Heater				

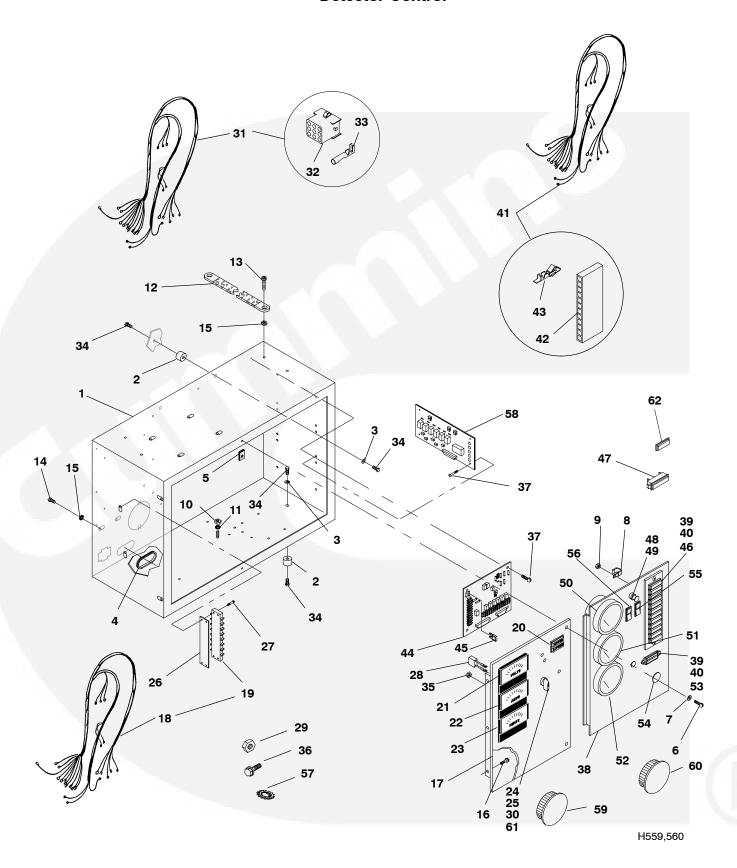
#### **Control Heater**



F	١	3	3(	6	

REF	PART	QTY	PART	REF	PART	QTY	PART
NO.	NO.	USED	DESCRIPTION	NO.	NO.	USED	DESCRIPTION
	000 0400	0	Marint Tie Cable	44	005 0440		* Cabla
	332-2420	2	Mount, Tie – Cable	11	335-0110	ı	* Cable
2	098–6195	1	Label, Caution	12	332–2697	1	* Terminal, Ring
3	333-0550-0	01 1	Heater, Control	13	332-1992	1	* Terminal, Receptacle
			120 Volt	14	332-2430	1	* Terminal, Tab
4	898-1195-0	1 A/R	Sleeving, Convoluted	15	332-0942	3	Tie, Cable
5	357-0114	. 1	Rectifier, Power	16	800-0024	1	Screw, Cap - Hex Head
6	332-1992	1	Terminal, Receptacle				(5/16-18 x 3/4)
7	332-2430	1	Terminal, Tab	17	870-0257	1	Nut, Hex - Self Locking
8	898-0860	A/R	Tubing, Heat Shrink				(5/16–18)
9	332-1789	2	Splice, Window (18 Gauge)	18	856-0008	2	Washer, Lock EIT (5/16)
10	335-0173	1	Cable, Heater - Control				,
			(Includes Parts Marked *)	* - P	arts Included	In 335-0	173 Control Heater Cable

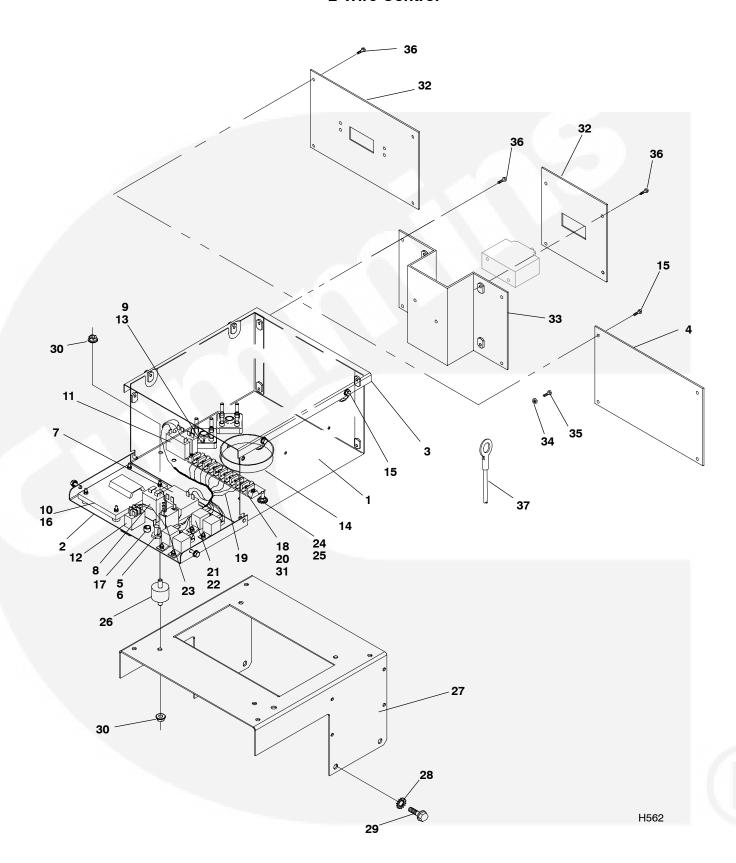
#### **Detector Control**



#### **Detector Control**

REF NO.		QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-3030	1	Box, Control	33	323-1648	9	Socket, Contact
2 3	402-0527 850-0045	4 4	Isolator, Vibration Washer, Lock – Spring (5/16)	34	800-0045	4	Screw, Cap – Hex Head (5/16–18 x 3/8")
4	508-0051	1	Grommet (Fits 2" Hole)	35	870-1220	6	Nut, Hex (#4–40)
5 6	406–0332 406–0333	2 2	Receptacle, Fastener Stud, Fastener	36	821-5000-05		Screw, Self-Locking – Hex Washer Head (#10–32 x 1/2")
7	406-0334	2	Washer, Stud Retainer	37	815-0388	8	Screw, Pan Head (Cross
8	332-0052	2	Clip, Wire				Recessed (#6-32 x 1/2")
9	870-0131	1	Nut, Hex - W/ET (#10-32)	38	301-9055-01	1	Door, Control – DC
10	871-0015	1	Nut, Hex (1/4-20)	39	815-0385	4	Screw, Machine - Round Head
11	526-0018	1	Washer, Flat (1/4")				(#6-32 x 1/2")
12	337-0049	1	Strap, Ground	40	870-0183	4	Nut, Hex - W/ET (#6-32)
13	800-0024	1	Screw, Cap – Hex Head (5/16–18 x 1/2")	41	338-3252	1	Harness, Wiring – DC Control Door (Includes Connector
14	815-0905-08	3 1	Screw, Pan Head - Cross Recessed (#10-32 x 7/8")				Housing and Contact Pins) (22 Wire, 32") (A11J4 to GND,
15	856-0008	2	Washer, Lock - EIT (5/16")				M11,12,13,14, S11,12, DS11)
16	821-0004	3	Screw, Self-Locking - Hex	42	323-1308	1	Housing, Connector (J4)
			Washer Head (#10-32 x	43	323-1302	11	Pin, Contact
17	201 0054 01	41	5/16")	44	300–4296	1	Board Assembly, Printed Circuit
17 18	301-9054-01 338-2278	1	Door, Control – AC Harness, Wiring – AC Control				<ul> <li>Engine Monitor (Includes Fuses) (A11)</li> </ul>
10	330-2276		Door (Includes Terminal	45			Fuse Fuse
			Block) (19 Wire, 26") (TB21,	70	321-0307-03	2	5 Amp (Tan) (F4, F5)
			GND to GND, M21,22,23,		321-0307-06		15 Amp (Light Blue) (F3)
			S21, DS21,22)		321-0307-07		20 Amp (Yellow) (F1, F2)
19	332-0607	1	Block, Terminal (12 Place) (TB21)	46	322-0360-01		Light Assembly, Indicator (Includes Wiring Harness and
20	322-0363	1	Light, Indicator – Upper/Lower				Connector Housing) (A12)
			Scale (DS21,22)	47	322-0369-01		Light, Indicator - Replacement
21			Voltmeter, AC (M21)	48	322-0361	1	Light, Panel (DS11)
	302-1148	1	0–300/600	49	322-0004	1	Bulb, Panel Light –
00	302-1753	1	0-0750		100 0100	,	Replacement
22	302-1473		Ammeter AC (M22)	50	193-0466	1	Gauge, Oil Pressure (M11)
23	302–1968	1	Meter, Frequency (M23)	51	193–0351	1	Gauge, Water Temperature
24	853-0008	1	Washer, Lock – ET (#10)		000 1011		(M12)
25	308–1052	1	Switch, Rotary –	52	302-1641	1	Voltmeter, DC (M13)
			Voltmeter/Ammeter (Includes	53 54	302-2002 517-0131	1 1	Meter, Hour (M14)
26	332-2723	4	Handle) (S21) Strip, Marker	55	308-1010		Plug, Hole (Fits 7/8" Hole) Switch, Rocker – Lamp
27	815-0901-06	5 2	Screw, Cross Recessed –	55	306-1010	1	Test/Reset Panel Lamp (S11)
	010 0001 00	, <u>-</u>	Thread Forming (#6-32 x	56	308-1011	1	Switch, Rocker -
28	355 0190	4	5/8") Capacitor – Voltmeter (.1 Mfd.,	57	053 0000	4	Run/Stop/Remote (S12)
20	355–0189	1	500 WVDC) (C21)	57 58	853-0008 300-5098	1 1	Washer, Lock – ET (#10) Board, Printed Circuit – Sensor
29	870-0183	2	Nut, Hex – W/ET (#6–32)			·	Board (A27)
30	815-0875-02	2 3	Screw, Machine - Round Head	59	517-0302	1	Plug, Hole (Fits 2–1/4" Hole)
21	220 2400		(M4 x 8mm) Harness, Wiring – Terminal	60	517 0201	1	(Quantity Used As Required)
31	338–3429	1	Block (9 Wire, 11") (Includes	60	517–0301	1	Plug, Hole (Fits 2" Hole) (Quantity Used As Required)
			Connector Plug and Sockets)	61	308-1082	1	Handle, Rotary Switch
			(P2 to TB21)	62	322-0431-10		Lens, Replacement – Check
32	323-1644-02	? 1	Plug, Connector (P2)	-	:.: 10	•	Engine (DS19 or DS20)

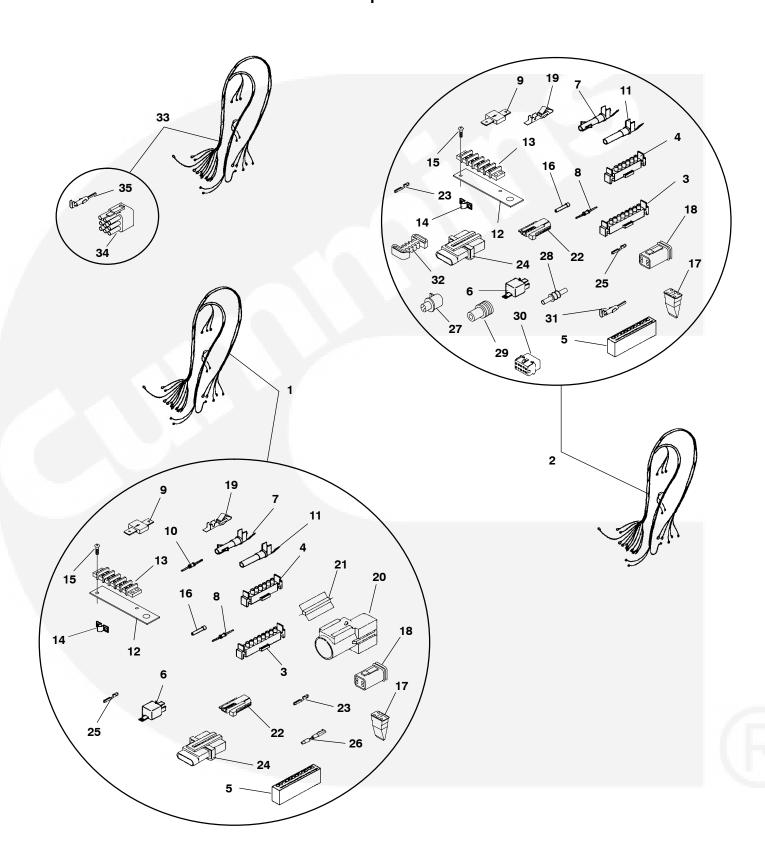
#### 2-Wire Control



#### 2-Wire Control

REF NO.		QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-3321	1 1	Box, Control	30	870-2054	8	Nut, Locking – Hex Flange
2 3	319–3322 319–3326	1	Panel, Control – Front Cover, Control	31	332-3573	1	Head (M6) Strip, Marker
4	319-3324	1	Plate, Control – Sets Without	32	040 0005 04		Cover, Circuit Breaker
5	321-0175	1	Circuit Breaker Holder, Fuse		319–3325–01	1	Used With 2 Pole Circuit Breaker
6	321-0353	1	Fuse (20 Amp)		319–3339	1	Used With 3 Pole Circuit
7 8	307–2871 302–2002	1 1	Relay, Timer Meter, Hour		319-3824-01	1	Breaker – Spec A Used With 3 Pole Circuit
9	332-3249	2	Block, Terminal		0.0 002. 0.		Breaker – 480V
10	305-0982	1	Regulator, Voltage (VR21)				<ul><li>Begin Spec B</li></ul>
11	307-2677-03	1	Relay (20 Amp) (K21)		319-3647	1	Used With 3 Pole Circuit
12	308-1011	1	Switch, Rocker				Breaker – 600V
13	821-6001-03	2	Screw, Hex Head				- Begin Spec B
	500 4407	_	(M5 x 0.8 x 16)	33			Bracket, Mounting – Circuit
14 15	508–1127 821–6002–03	1 10	Bushing, Nylon Screw, Hex Head (M6 x 1 x 16)				Breaker – Used With 3 Pole Circuit Breaker
16	870-2064-01		Nut, Lock – Nylon (M4)		319–3338	1	Spec A
17	517-0133	1	Plug, Hole		319-3823-01		480V – Begin Spec B
18	815-0925-01	4	Screw, Slotted - Flat Head -		319–3646	1	600V – Begin Spec B
			Thread Forming (M4 x 0.7 x	34	870-2064-01	4	Nut, Lock (M4) – Used With 2
			20)				Pole Circuit Breaker
19			Harness, Control	35	800-3042	4	Screw, Hex Head (M4 x 0.7 x
	338–3680	1	Spec A (Includes Parts Marked *)				10) – Used With 2 Pole Circuit Breaker
	338-3733	1	Begin Spec B (Includes Parts	36			Screw, Hex Head
	333 3733		Marked #)				(M6 x 1 x 16)
20	332-3564	1	*# Block, Terminal (TB1)		821-6002-03	4	Used With 2 Pole Circuit
21	357-0030	1	*# Rectifier (6 Amp) (CR4)				Breaker
00	007 0047 04		(Mounted on K11 Relay)		821-6002-03	8	Used With 3 Pole Circuit
22 23	307–2817–01	4	*# Relay (K11-K14) Breaker, Circuit	37			Breaker Lead
23	320-1941	1	2 Pin	37	226-4778-01	2	Used With 2 Pole Circuit
	320-1824-02	1	4 Pin		220 4770 01	_	Breaker
24	860-2057	5	Nut, Hex (M6)		226-4778-01	3	Used With 40-100 Amp
25	856-0006	5	Washer, Lock - EIT (1/4")				Circuit Breaker
26	402-0669	4	Isolator, Vibration		226-4778-03	3	Used With 15-30 Amp
27			Bracket, Control Saddle				Circuit Breaker
	405–6098	1	Spec A-C				
00	319-4970-02	1	Begin Spec D				680 Control Harness
28 29	856-0008 815-0236	4 4	Washer, Lock - EIT (5/16") Screw, Cap - Hex Head -	#	rants included	111 338-3	733 Control Harness
29	010-0230	4	Thread Forming (5/16–18 x				
			5/8")				
			-, - ,				

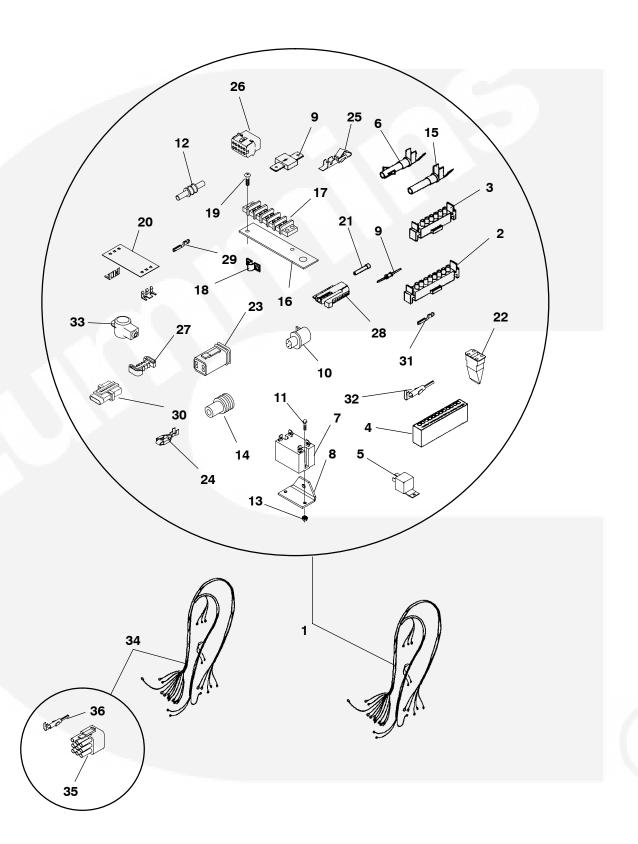
#### Wiring Harness Generator Sets With Detector Control Spec A-C



#### Wiring Harness Generator Sets With Detector Control Spec A-C

REF	PART NO.	QTY USED	PART DESCRIPTION	REF	PART	QTY USED	PART
NO.	NO.	OSED	DESCRIPTION	NO.	NO.	USED	DESCRIPTION
1	338-3670	1	Harness, Wiring - Engine to	17	323-1548	1	*+ Wedge, Plug (Used in E1)
			Control (Includes Parts	18	323-1546	1	*+ Plug (Used in E1)
			Marked +) - Spec A, B	19	323-1302	11	*+ Pin, Contact (Used in J3)
2	338-3796	1	Harness, Wiring - Engine to	20	166-0860	1	+ Connector - 2 Place (P8)
			Control (Includes Parts	21	166-0849	1	+ Wedge, Connector (Used in
			Marked *) - Spec C				P8)
3	323-1306	1	*+ Housing, Connector - 8 Place	22	191-2176	1	*+ Connector - 1 Place (P7)
			(J1)	23	191-2181	3	*+ Socket, Contact (Used in P6)
4	323-1304	1	*+ Housing, Connector - 6 Place	24	191-2178	1	*+ Connector - 3 Place (P6)
			(J2)	25	191–2177	1	*+ Socket, Contact (Used in P7)
5	323-1374-12	1	*+ Housing, Connector - 12 Place	26	166-0850	2	+ Socket, Contact (Used in P8)
			(J3)	27	323-1765	1	* Housing, Connector – 4 Pin
6			*+ Relay (K4)				(S7)
	307-2817-01	1	*+ Spec A, B	28	323-1712	4	* Seal
	307-2817-01		*+ Spec C	29	323–1708	10	* Seal, Cable (S7) (P8)
7	323-1200	12	*+ Socket, Contact (Used in J1,J2)	30	323–1710	1	* Connector – 10 Pin (P8)
8	350-0980	1	*+ Resistor (510 Ohms) (Located	31	323–1707	6	* Socket, Contact (Used in P8)
			in Harness Sleeving at P7	32	323–1719	1	* Housing, Lock (P8)
_			and P8 End)	33	338–3682	1	Harness, Wiring – AC Auxiliary
9	357-0030	1	*+ Rectifier, Silicon (6 Amp)				(Includes Parts Marked #)
10	351-1599-42	. 1	+ Resistor (24 Ohms) (Used on	34	323-1644-01		# Housing, Plug (J2)
<b>.</b>			TB1)	35	323–1647	9	# Pin, Contact (Used in J2)
11	323-1492	3	*+ Socket, Contact (Used on E1)		5		0=00 E O
12	319-2006-01	1	*+ Bracket, Terminal Mounting	*		ın 338-	3796 Engine to Control Wiring
13	332-0604	1	*+ Block, Terminal – 5 Place (T26)		Harness		2072 5
14	332-1043	4	*+ Jumper (T26)	+		ın 338-	-3670 Engine to Control Wiring
15	815-0538	2	*+ Screw, Machine - Round Head	,,	Harness		0000 40 4 11 14/11
			- Cross Recessed W/IT	#		ın 338-	3682 AC Auxiliary Wiring
10	000 1501		(8–32 x .50)		Harness		
16	323–1591	1	*+ Plug, Connector (Used in E1)				

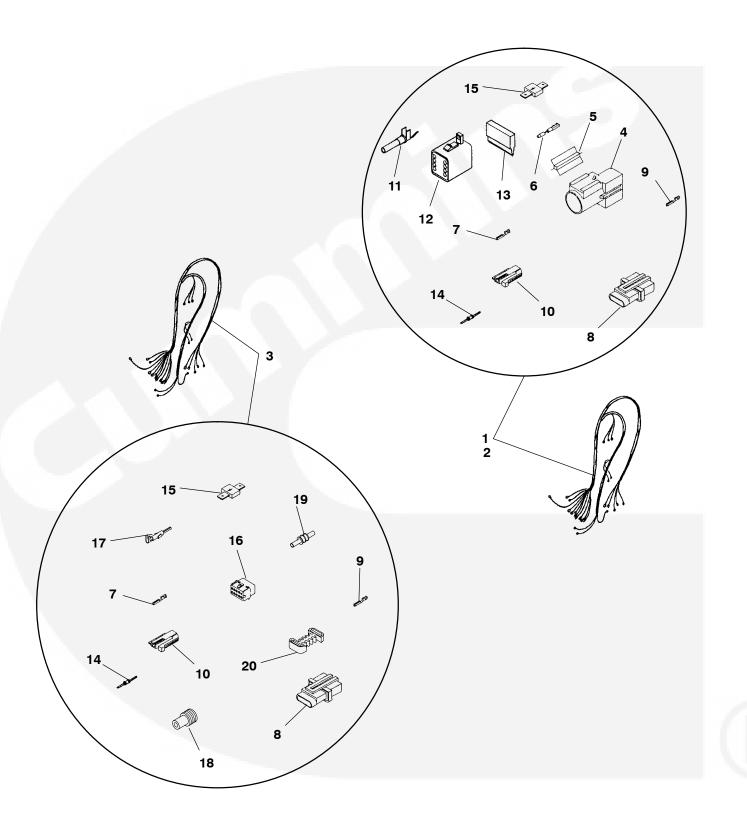
#### Wiring Harness Generator Sets With Detector Control Begin Spec D



#### Wiring Harness Generator Sets With Detector Control Begin Spec D

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	338-4298-01	1	Harness, Wiring – Engine to Control (Includes Parts Marked *)	19	815–0538	2	* Screw, Machine – Pan Head – Cross Recessed W/ET (8-32 x .50)
2	323–1306	1	* Housing, Connector – 8 Place (J1)	20	332-3792-01	1	* Cover, Terminal Block (Includes Spring Clips)
3	323-1304	1	* Housing, Connector - 6 Place	21	323-1591	1	* Plug, Connector (E1)
			(J2)	22	323-1548	1	* Wedge, Plug
4	323-1374-12	. 1	* Housing, Connector - 12 Place	23	323-1546	1	* Plug (4 Pin)
			(J3)	24	323-1709	3	* Socket, Contact (S7)
5	307-2817-01	1	* Relay (K7)	25	323-1302	11	* Pin, Contact
6	323-1200	12	* Socket, Contact	26	323-1710	1	* Connector – 10 Pin (P8)
7	307-2968-03	1	* Relay, Power (K4)	27	323-1719	1	* Housing, Lock (P8)
8	307-2982-02	. 1	* Bracket, Relay	28	191-2176	1	* Connector - 1 Place (P7)
9	350-0980	1	* Resistor (510 Ohms) (Located	29	191-2181	3	* Socket, Contact (P6)
			in Harness Sleeving at P7	30	191–2178	1	* Connector – 3 Place (P6)
			End)	31	191-2177	1	* Socket, Contact (P7)
10	323-1765	1	* Housing, Connector – 4 Pin	32	323-1707	7	* Socket, Contact (P8)
			(S7)	33	416-1021-02	1	* Boot
11	812-0079	2	* Screw, Machine – Round Head (#8-32 x .50)	34	338–3682	1	Harness, Wiring – AC Auxiliary (Includes Parts Marked #)
12	323-1712	4	* Plug, Cavity (S7) (P8)	35	323-1644-01	1	# Housing, Plug (J2)
13	870-0221	2	* Nut, Hex - W/ET (#8-32)	36	323-1647	9	# Pin, Contact (J2)
14	323-1708	10	* Seal, Cable (S7) (P8)				
15	323-1492	3	* Socket, Contact	*	Parts Included	in 338-4	4298-01 Engine to Control
16	319-2006-01	1	* Bracket, Terminal Mounting		Wiring Harness	3	-
17 18	332-0604 332-1043	1 4	* Block, Terminal – 5 Place (T26) * Jumper (T26)		Parts Included Harness	in 338–3	3682 AC Auxiliary Wiring

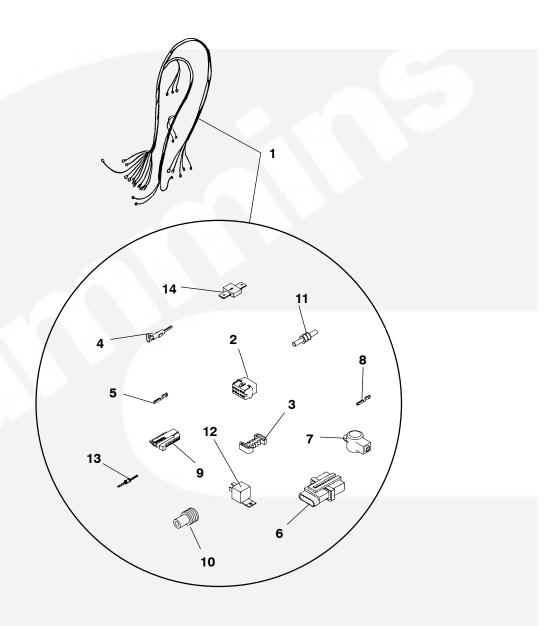
#### Wiring Harness Generator Sets With 2-Wire Control Spec A-C



#### Wiring Harness Generator Sets With 2-Wire Control Spec A-C

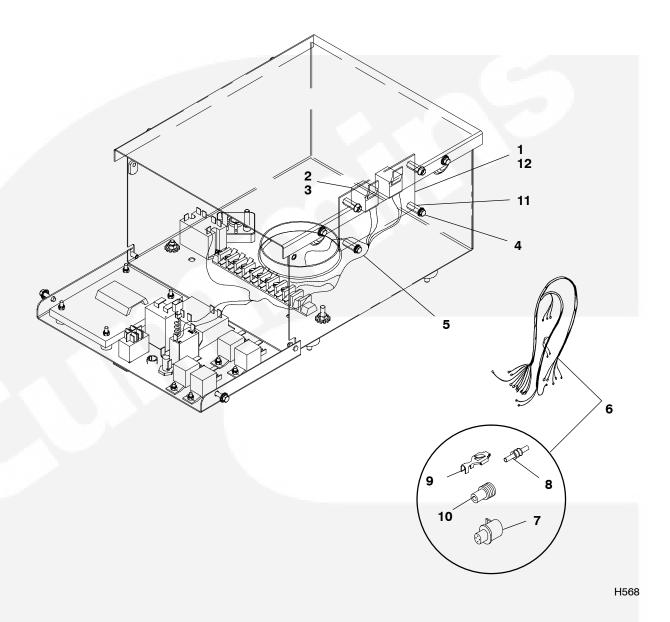
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	RI No	EF PART O. NO.		QTY SED	PART DESCRIPT	ION
1	338-3669	1	Harness, Wiring – Engine to Control (Includes Parts Marked *) – Spec A	13 14	323–1543 350–0980	1 1		Wedge, Plug (Used Resistor (510 Ohms (Located in Harne	s)
2	338–3734	1	Harness, Wiring – Engine to Control (Includes Parts Marked ^) – Spec B	15	357-0030	1	+^	Sleeving at P7 an Rectifier, Silicon (6 / (CR5)	d P8 End)
3	338–3795	1	Harness, Wiring – Engine to Control (Includes Parts Marked +) – Spec C	16 17 18	323–1710 323–1707 323–1708	1 6 6	+	Connector – 10 Pin Socket, Contact (Us Seal (P8)	
4 5	166-0860 166-0849	1 1	^* Connector – 2 Place (P8)  ^* Wedge, Connector (Used in P8)	19 20	323–1712 323–1719	4	+	Seal, Plug (P8) Housing, Lock (P8)	
6 7	166-0850 191-2177	2	^* Socket, Contact (Used in P8) +^* Socket, Contact (Used in P7)	*	Parte Include	nd in 33	18_366	69 Engine to Control	Wiring
8	191–2178		+** Connector – 3 Place (P6)		Harness	, u III 00	0-000	ba Engine to Control	vviing
9	191–2181		+^* Socket, Contact (Used in P6)	^		ed in 33	8–373	34 Engine to Control	Wiring
10 11 12	191–2176 323–1492 323–1541	6	+^* Connector - One Place (P7) ^* Socket, Contact (Used in P2) ^* Plug, Connector - 8 Place	+	Harness Parts Include Harness	d in 33	8–379	95 Engine to Control	Wiring
			(P2)						

#### Wiring Harness Generator Sets With 2-Wire Control Begin Spec D



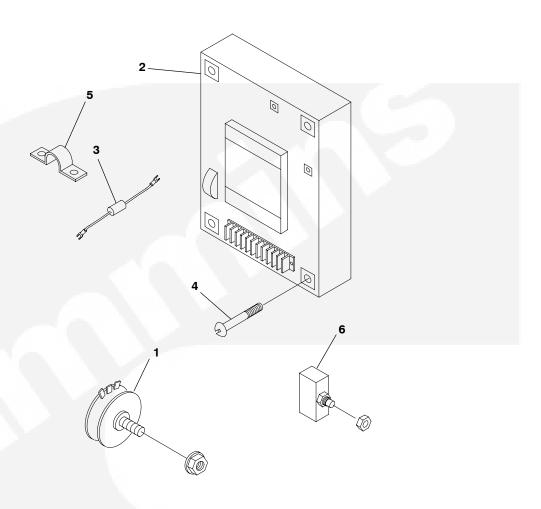
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	338-4299-01	1	Harness, Wiring - Engine to	7	416-1021-02	1	Boot
			Control (Includes the	8	191-2181	3	Socket, Contact (P6)
			Following Parts)	9	191-2176	1	Connector - One Place (P7)
2	323-1710	1	Connector – 10 Pin (P8)	10	323-1708	7	Seal (P8)
3	323-1719	1	Housing, Lock (P8)	11	323-1712	2	Seal, Plug (P8)
4	323-1707	7	Socket, Contact (P8)	12	307-2817-01	1	Relay (K7)
5	191-2177	1	Socket, Contact (P7)	13	350-0980	1	Resistor (510 Ohms)
6	191–2178	1	Connector - 3 Place (P6)	14	357-0030	1	Diode (CR3)

### Dry Contact 2-Wire Control Begin Spec B



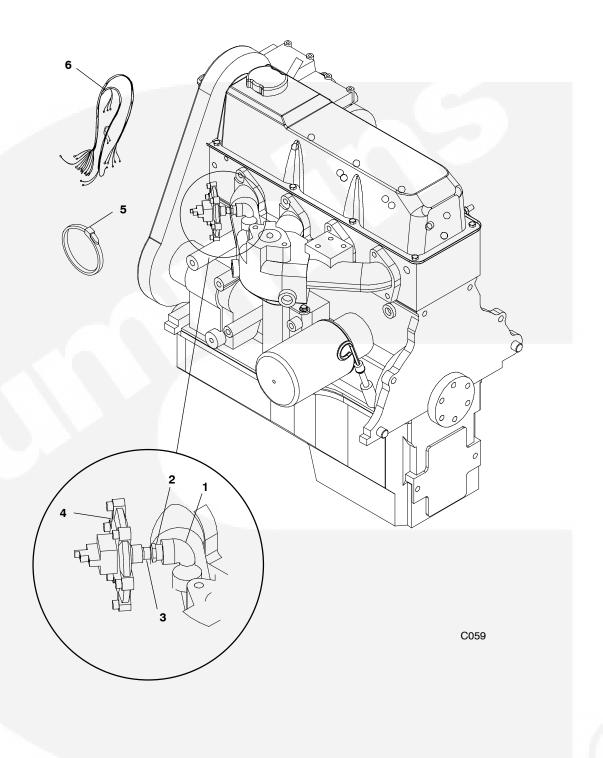
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-3601-02	2 1	Panel, Relay	7	323-1765	1	# Housing, Connector (4 Pin)
2	307-2817-01	2	Relay (K8, K9)	8	323-1712	A/R	# Plug, Cavity
3	821-6001-02	2	Screw, Hex Head	9	323-1709	A/R	# Socket, Contact (Used in S7)
			(M5 x 0.8 x 12)	10	323-1708	A/R	# Seal, Cable
4	821-5000-05	5 4	Screw, Hex Head	11	870-2204	4	Standoff, Hex (#10-32)
			(#10-32 x 1/2")	12	870-0131	4	Nut, Hex - W/ET (#10-32)
5	338-3731	1	Harness, Wiring - Control				
6	338-3743	1	Harness, Wiring – Dry Contact (Includes Parts Marked #)	# – F	Parts Included	d in 338–3	3743 Wiring Harness

#### Voltage Regulator Detector Control



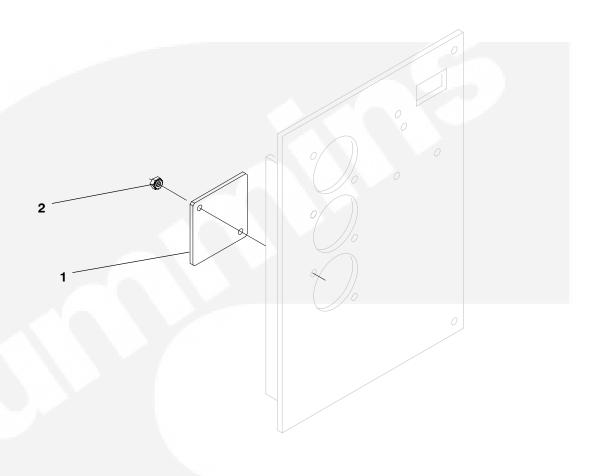
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1 2	303-0261 305-0982	1 1	Potentiometer (R21) Board, Printed Circuit – Voltage	4	815-0905-08	4	Screw, Cross Recessed (#10-32 x 7/8)
			Regulator (Model SX460)	5	332-2605	1	Jumper
3	350-1222	1	(VR21) Resistor (TB21)	6	320-1688-01	1	Breaker, Circuit (CB21)

#### **Vacuum Switch**



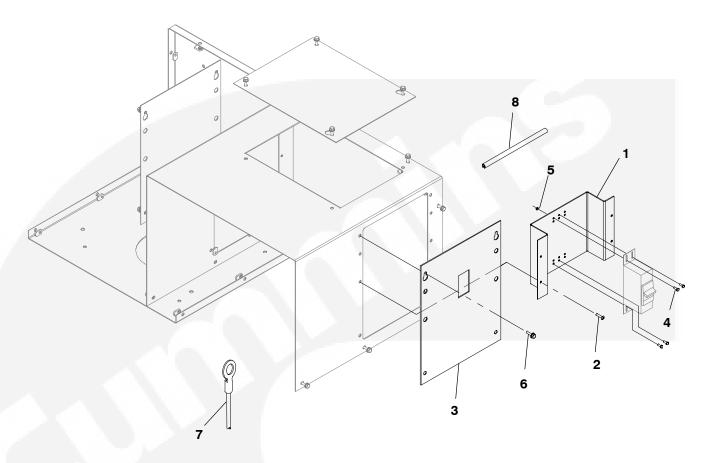
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	505-0011	1	Elbow, Street	4	148-1099	1	Switch, Vacuum
2	505-0007	1	Bushing, Reducer	5	332-1794	A/R	Tie, Cable
			(1/4 NPT x 1/8 NPT)	6	338-3667	1	Harness, Vacuum Switch
3	505-0098	1	Nipple, Pipe (1/8 NPT x .75)				

#### Control Door Cover Generator Sets With Detector Control Begin Spec E



REF	PART QTY	PART	REF	PART	QTY	PART
NO.	NO. USED	DESCRIPTION	NO.	NO.	USED	DESCRIPTION
1	300-5498-02 A/R	Cover, Control Door - Meters	2	870-0131	A/R	Nut, Hex - W/ET (#10-32)

# Circuit Breaker Mounting Bracket Detector Control



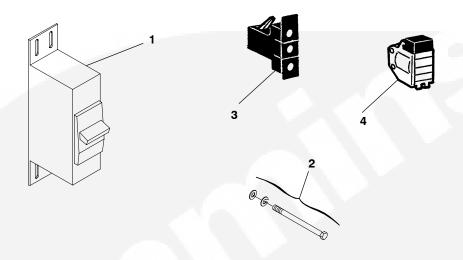
KB16,17,KM03,04,05,06,07,08,09,10,11

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Bracket, Mounting – Circuit Breaker	4	800-3042	4	Screw, Hex Head (M4 x 0. 10) – Used With 2 Pole
	319–3314	1	Used With 2 Pole Circuit				Circuit Breaker
			Breaker	5	870-2064-01	4	Nut, Lock (M4) – Used Wit
	319–3337	1	Used With 3 Pole Circuit				Pole Circuit Breaker
			Breaker – Spec A	6	821-6002-03	4	Screw, Hex Head
	319-3905-02	2 1	Used With 3 Pole Circuit				(M6 x 1 x 16)
			Breaker – 480V	7			Lead
			<ul><li>Begin Spec B</li></ul>		226-4778-02	2	Used With 2 Pole Circuit
	319-3648	1	Used With 3 Pole Circuit				Breakers
			Breaker - 600V		226-4778-02	3	Used With 40-100 Amp
			<ul><li>Begin Spec B</li></ul>				Circuit Breakers
2	818-0231-02	2 4	Rivet, Pop		226-4778-04	. 3	Used With 15-30 Amp
3			Cover, Circuit Breaker				Circuit Breakers
	319-3315-02	2 1	Used With 2 Pole Circuit	8	508-0305-02	_	Edging - Bulk (Order By T
			Breaker				Foot – 1 Foot Required)
	319-3315-01	1 1	Used With 3 Pole Circuit				With 2 Pole Circuit Break
			Breaker - Spec A				2 . 3.3 3.1 3.3 3.1
	319-3315-09	9 1	Used With 3 Pole Circuit				
	0.0 0010 00	•	Breaker – 480V				
			- Begin Spec B				
	040 0045 05	- 4	- Degin Opec D				

Used With 3 Pole Circuit Breaker – 600V – Begin Spec B

319-3315-07 1

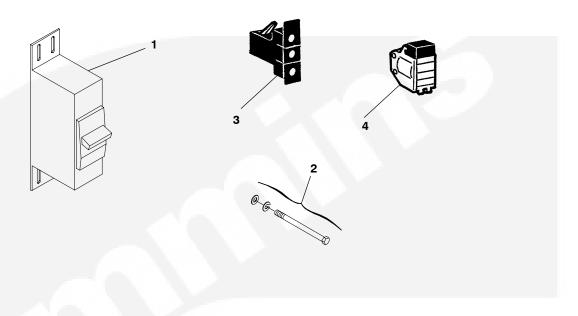
#### Circuit Breaker Spec A



KM03,04,05,06,07,08,09,10,11,KB16,KB17,K883,KL41

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.		QTY USED	PART DESCRIPTION
1	320-2006-03 320-2006-02 320-1975-09 320-1975-08 320-1975-07 320-1975-06	1 1 1	Breaker, Circuit  2 Pole (UL)  90 Amp  100 Amp  3 Pole (UL & IEC)  * 30 Amp  * 40 Amp  * 45 Amp  * 50 Amp	2	320-1986-04 320-1979-01	1	Package, Hardware – Circuit Breaker Mounting (Includes Screws, Nuts and Lock Washers) Accessories, Circuit Breaker: The following are used on 320–1975–XX Circuit Breakers Contact, Auxiliary Switch
	320-1975-05 320-1975-04 320-1975-03 320-1975-02 320-1975-01	1	* 60 Amp * 70 Amp * 80 Amp * 90 Amp * 100 Amp	4 * – I	320-1979-02 ncludes Mountir	-	Trip, Shunt (12V)

#### Circuit Breaker Begin Spec B



KM34, KM33, KM32, KM31, KM95, KM94, KM93, KM92, K883, KL41, KB17, KB16

REF NO.	PART NO.	QTY USED		PART DESCRIPTION	REF NO.		PART NO.	QTY USED	PART DESCRIPTION
1			Е	Breaker, Circuit	2	3	320-1986-08	1	Package, Hardware - Circuit
				2 Pole (UL)					Breaker Mounting (Includes
	320-2006-03	1		90 Amp					Screws, Nuts and Lock Washers)
	320-2006-02	1		100 Amp					Accessories, Circuit Breaker:
				3 Pole (UL & IEC) (480V)					The following are used on
	320-2009-10	1	*						320-1959-XX Circuit
	320-2009-09	1	*	30 Amp					Breakers
	320-2009-08	1	*	40 Amp	3	3	320–1981–01	2	Switch - Used as Auxiliary
	320-2009-06	1	*	50 Amp					Contact or Trip Alarm
	320-2009-05	1	*	60 Amp	4	3	320–1981–02	1	Trip, Shunt (12V)
	320-2009-04	1	*	70 Amp					
	320-2009-03	1	*	80 Amp	* – lı	nc	cludes Mounti	ng Hard\	ware
	320-2009-01	1	*	1000 Amp					
				3 Pole (UL & IEC) (600V)					
	320-1959-21	1	*	20 Amp					
	320-1959-20	1	*	30 Amp					
	320-1959-19	1	*	40 Amp					
	320-1959-18	1	*	50 Amp					
	320-1959-17	1	*	60 Amp					
	320-1959-10	1	*	70 Amp					
	320-1959-09	1	*	80 Amp					
	320-1959-08	1	*	90 Amp					
	320-1959-07	1	*	100 Amp					

Part No. Page	Part No. Page	Part No. Page	Part No. Page
098–4500, <b>33</b> , <b>35</b>	145-0724, <b>15</b> , <b>16</b> , <b>17</b> , <b>18</b> , <b>19</b> , <b>20</b> , <b>21</b>	191–2200, <b>36</b>	226–4778–04, <b>63</b>
098–4730, <b>33</b> , <b>35</b>	148–0597, <b>15</b> , <b>18</b> , <b>20</b> , <b>21</b>	191–2213, <b>36</b>	231–0386, <b>9</b>
098–4732, <b>33</b> , <b>35</b>	148–0637, <b>16</b> , <b>19</b> , <b>20</b>	191–2215, <b>36</b>	232–2417, <b>43</b> , <b>45</b>
098–5429, <b>33</b> , <b>35</b>	148–0737, <b>17</b> , <b>21</b>	191–2216, <b>36</b>	232–2826, <b>43</b> , <b>45</b>
098–6195, <b>47</b>	148–1099, <b>61</b>	191–2217, <b>36</b>	232–3441, <b>9</b>
098–7451, <b>35</b>	148–1104, <b>15</b> , <b>16</b> , <b>17</b> , <b>18</b> , <b>19</b> ,	191–2218, <b>36</b>	234–0498, <b>46</b>
098–7868, <b>35</b>	20, 21	191–2219, <b>36</b>	234–0519, <b>43</b> , <b>45</b>
098–7902–02, <b>33</b> , <b>35</b>	149–2617, <b>20</b> , <b>21</b>	191–2221, <b>36</b>	234–0665, <b>9</b>
101–0823, <b>9</b>	149–2622, <b>17</b> , <b>21</b>	191–2222, <b>36</b>	234–0993, <b>46</b>
102–1054–01, <b>9</b>	150–0716, <b>40</b>	191–2263, <b>27</b>	300–4296, <b>49</b>
104–1944, <b>9</b>	150-0723, <b>40</b>	191–2268–01, <b>28</b>	300–4324, <b>41</b>
104–1951, <b>9</b>	150-0939, <b>37</b> , <b>38</b>	191–2268–02, <b>27</b>	300–5098, <b>49</b>
128-0154-02, <b>33</b>	150–1445, <b>40</b>	191–2276–02, <b>29</b>	300–5498–02, <b>62</b>
130–1793, <b>28</b> , <b>29</b>	150–2550, <b>37</b> , <b>38</b>	193–0351, <b>49</b>	301–9054–01, <b>49</b>
130–1798, <b>28</b> , <b>29</b>	150-2620, <b>37</b> , <b>38</b>	193–0448, <b>9</b>	301–9055–01, <b>49</b>
130–3552, <b>28</b> , <b>29</b>	150-2651, <b>37</b> , <b>38</b>	193–0451, <b>14</b>	302–1148, <b>49</b>
130–3570, <b>23</b>	150-2692-01, <b>37</b> , <b>38</b>	193-0463, <b>14</b>	302–1473, <b>49</b>
130–3571, <b>23</b>	150-2694, <b>37</b> , <b>38</b>	193–0466, <b>49</b>	302–1641, <b>49</b>
130–3572, <b>23</b>	150-2811-02, <b>15</b> , <b>16</b> , <b>17</b> , <b>18</b> ,	193–0468, <b>23</b>	302–1753, <b>49</b>
130-3721-01, <b>28</b> , <b>29</b>	19, 20, 21, 38	193–0477, <b>9</b>	302–1968, <b>49</b>
130-4770-03, <b>28</b> , <b>29</b>	155–0360–01, <b>22</b>	193–0545, <b>38</b>	302–2002, <b>49</b> , <b>51</b>
130–4792, <b>28</b> , <b>29</b>	155–0927, <b>22</b>	201–2151, <b>43</b>	303–0261, <b>60</b>
130–4796, <b>28</b> , <b>29</b>	155–1256, <b>15</b> , <b>16</b> , <b>18</b> , <b>19</b> ,	201–3515–02, <b>45</b>	305–0982, <b>51</b> , <b>60</b>
130–4833, <b>28</b> , <b>29</b>	20, 21	201–3573–06, <b>43</b>	307-0268-01, <b>17</b> , <b>21</b>
130–4834, <b>26</b>	155–1924, <b>22</b> 155–1926, <b>22</b>	201–3573–07, <b>43</b> , <b>45</b>	307-0312-01, <b>15</b> , <b>16</b> , <b>18</b> , <b>19</b> , <b>20</b> , <b>21</b>
130–4835, <b>26</b>	155–1920, <b>22</b> 155–2715, <b>9</b>	201–3602–06, <b>45</b>	307–2677–03, <b>51</b>
130–4839, <b>28</b>	155–2715, <b>9</b> 155–2984, <b>9</b>	205–0258, <b>43</b> , <b>45</b>	307–2817–01, <b>20</b> , <b>21</b> , <b>51</b> ,
130–4846, <b>23</b>	155–3242, <b>9</b>	211-0256-02, <b>43</b> , <b>45</b>	53, 55, 58, 59
130–4856, <b>28</b>	166–0767, <b>41</b>	220–2009, <b>43</b>	307–2871, <b>51</b>
130–4958–02, <b>29</b>	166–0844, <b>9</b>	220–2309, <b>45</b>	307–2968–03, <b>55</b>
130–4959–02, <b>29</b>	166–0845, <b>9</b>	220-4563-06, <b>43</b>	307–2982–02, <b>55</b>
130–5003–02, <b>29</b>	166–0849, <b>53</b> , <b>57</b>	220–4563–07, <b>43</b>	308–1010, <b>49</b>
130–5116–02, <b>29</b> , <b>35</b>	166–0850, <b>53</b> , <b>57</b>	220–4564–06, <b>43</b>	308–1011, <b>49</b> , <b>51</b>
130–5117–02, <b>29</b> , <b>35</b>	166–0860, <b>53</b> , <b>57</b>	220–4565–06, <b>43</b>	308–1052, <b>49</b>
140–0078, <b>22</b>	166–0867, <b>10</b>	220–4613–06, <b>45</b>	308–1082, <b>49</b>
140–3146, <b>12</b>	166–0868, <b>9</b>	220–4613–07, <b>45</b>	309-0641-19, <b>9</b>
140–3147, <b>12</b> , <b>13</b>	166–0884–01, <b>11</b>	220–4614–06, <b>45</b>	309–0662, <b>9</b> 309–0669, <b>18</b> , <b>19</b>
140–3198–02, <b>12</b>	191–2176, <b>53</b> , <b>55</b> , <b>57</b> , <b>58</b>	220–4615–06, <b>45</b>	309–0669, <b>18</b> , <b>19</b>
140–3199–02, <b>12</b>	191–2177, <b>53</b> , <b>55</b> , <b>57</b> , <b>58</b>	226–4778–01, <b>51</b>	319–2006–01, <b>53</b> , <b>55</b>
140–3202, <b>12</b>	191–2177, <b>53</b> , <b>55</b> , <b>57</b> , <b>58</b>	226–4778–02, <b>63</b>	319–2000–01, <b>33</b> , <b>33</b>
140–3387–01, <b>13</b>		226–4778–02, <b>63</b> 226–4778–03, <b>51</b>	,
1 <del>1</del> 0-000 <i>1</i> -01, <b>13</b>	191–2181, <b>53</b> , <b>55</b> , <b>57</b> , <b>58</b>	220-4110-00, <b>31</b>	319–3312, <b>39</b>

Part No.	Pag <u>e</u>	Part No.	Page	Part No.	<u>Page</u>	Part No.	<u>Page</u>
319–3313, <b>39</b>		320–1975–06,	64	323–1548,	9, 53, 55	333-0588-02, <b>2</b>	24
319–3314, <b>63</b>		320-1975-07,	64	323-1549,	9	333-0624, <b>24</b>	
319-3315-01	, 63	320-1975-08,	64	323–1591,	<b>53</b> , <b>55</b>	335–0110, <b>47</b>	
319-3315-02	, 63	320-1975-09,	64	323-1644-	-01, <b>53</b> , <b>55</b>	335–0173, <b>47</b>	
319–3315–07	, 63	320-1979-01,	64	323-1644-	-02, <b>49</b>	337–0049, <b>49</b>	
319-3315-09	, <b>63</b>	320-1979-02,	64	323-1647,	53, 55	337–0090, <b>9</b>	
319–3316, <b>39</b>		320-1981-01,	65	323-1648,	49	338–2278, <b>49</b>	
319–3321, <b>51</b>		320-1981-02,	65	323–1707,	53, 55, 57, 58	338–3252, <b>49</b>	
319–3322, <b>51</b>		320-1986-04,	64		23, 53, 55, 57,	338–3429, <b>49</b>	
319–3324, <b>51</b>		320-1986-08,	65	58, 59		338–3594, <b>23</b>	
319-3325-01	, 51	320-2006-02,	64, 65	323–1709,		338–3654, <b>17</b> , <b>2</b>	21
319–3326, <b>51</b>		320-2006-03,	64, 65		53, 55, 57, 58	338–3667, <b>61</b>	
319–3337, <b>63</b>		320-2009-01,	65		53, 55, 57, 58, 59	338–3669, <b>57</b>	
319–3338, <b>51</b>		320-2009-03,	65	·	53, 55, 57, 58	338–3670, <b>53</b>	
319–3339, <b>51</b>		320-2009-04,	65		23, 53, 55, 59	338–3680, <b>51</b>	
319–3384, <b>41</b>		320-2009-05,	65	331–0041,		338–3682, <b>53</b> , <b>5</b>	55
319-3601-02	, 59	320-2009-06,	65	332–0052,		338–3698, <b>20</b> , <b>2</b>	21
319–3646, <b>51</b>		320-2009-08,	65	332–0604,		338–3731, <b>59</b>	
319–3647, <b>51</b>		320-2009-09,	65	332–0607,		338–3733, <b>51</b>	
319–3648, <b>63</b>		320-2009-10,	65	332–0942,		338–3734, <b>57</b>	
319-3823-01	, 51	321–0175, <b>51</b>		332–1043,		338–3740, <b>18</b> , <b>1</b>	9
319-3824-01		321-0307-03,	49	332–1355,		338–3743, <b>59</b>	
319-3905-02	, <b>63</b>	321-0307-06,	49	332–1389,		338–3795, <b>57</b>	
319-4970-02	, 39, 51	321-0307-07,	49	332–1554,		338–3796, <b>53</b>	
320-1688-01	, 60	321–0353, <b>51</b>		332–1789,		338–3816, <b>20</b> , <b>2</b>	21
320-1824-02	, <b>5</b> 1	322-0004, <b>49</b>		332–1794,		338–4288, <b>9</b>	
320–1941, <b>51</b>		322-0360-01,	49	332–1992,		338-4298-01, 5	
320-1959-07	, 65	322-0361, <b>49</b>		332–2420,		338-4299-01, <b>5</b>	
320-1959-08		322-0363, <b>49</b>		332–2430,		350–0980, <b>55</b> , <b>5</b>	07, 58
320-1959-09	, <b>65</b>	322-0369-01,	49	332–2605,		350–1222, <b>60</b>	
320-1959-10		322-0431-10,		332–2634, <b>21</b> , <b>28</b> ,	9, 15, 16, 17, 20, . 29	351–1599–42, <b>5</b>	3
320-1959-17		323–1200, <b>53</b> ,		332–2697,		355–0189, <b>49</b> 357–0030, <b>51</b> , <b>5</b>	3 57 59
320-1959-18	, <b>65</b>	323–1302, <b>49</b> ,		332–2723,		357–0030, <b>31</b> , 3	JS, J7 , J6
320-1959-19		323–1304, <b>53</b> ,		332–3249,		358–0069, <b>43</b> , 4	15
320-1959-20		323–1306, <b>53</b> ,		332–3564,		358–0009, <b>43</b> , 4	
320-1959-21		323–1308, <b>49</b>		332–3573,		402–0282, <b>30</b>	
320-1975-01		323-1374-12,	53, 55	332–3792–		402–0285, <b>30</b>	
320-1975-02		323–1492, <b>9</b> , <b>5</b>		333–0184,	•	402–0286, <b>30</b>	
320-1975-03	,	323–1541, <b>57</b>	. ,	333–0228,		402–0290, <b>30</b>	
320-1975-04		323–1543, <b>57</b>		333-0550-		402–0527, <b>49</b>	
320-1975-05	,	323–1546, <b>53</b> ,	55	333-0588-	•	402–0669, <b>51</b>	
5_5 1070 00	, - •	5_5 10 10, <b>50</b> ,		555 5555	- · , <b>- ·</b>	.52 5555, 61	

Part No. Page	Part No. Page	Part No. Page	Part No. Page
403–1830, <b>30</b>	416–1164, <b>31</b>	505–0071, <b>14</b>	525–0304, <b>7</b>
403–3795, <b>30</b>	416–1165–02, <b>31</b>	505–0078, <b>17</b>	525–0305, <b>7</b>
403–4254, <b>30</b>	502–0153, <b>28</b> , <b>29</b>	505–0084, <b>20</b> , <b>21</b>	525–0306, <b>7</b>
403–4255, <b>30</b>	502–0613, <b>24</b>	505–0085, <b>15</b> , <b>16</b> , <b>18</b> , <b>19</b>	526-0003, <b>33</b> , <b>35</b>
403–5041–01, <b>30</b>	502–0870, <b>24</b>	505–0098, <b>61</b>	526-0008, <b>43</b> , <b>45</b>
405–1872, <b>33</b> , <b>35</b>	502–0942, <b>17</b> , <b>21</b>	505–0099, 17, 21	526-0014, <b>30</b>
405–1889, <b>33</b> , <b>35</b>	503–0098, <b>9</b>	505–0102, <b>15</b> , <b>16</b> , <b>18</b> , <b>19</b> ,	526-0018, <b>37</b> , <b>38</b> , <b>49</b>
405–4932, <b>33</b> , <b>35</b>	503–0131, <b>17</b> , <b>21</b>	20, 21	526-0077, <b>40</b> , <b>41</b>
405–6097, <b>33</b> , <b>35</b>	503–0183, <b>24</b> , <b>28</b> , <b>29</b>	505–0106, <b>17</b>	526–0122, <b>30</b>
405–6098, <b>39</b> , <b>51</b>	503–0197, <b>9</b>	505–0110, <b>9</b>	526-0124, <b>41</b>
405–6162, <b>33</b> , <b>35</b>	503–0386, <b>17</b> , <b>21</b> , <b>24</b> , <b>28</b>	505–0132, <b>15</b> , <b>16</b> , <b>18</b> , <b>19</b> ,	526-0141, <b>28</b> , <b>29</b>
405–6163, <b>33</b> , <b>35</b>	503–0429, <b>28</b> , <b>29</b>	20, 21	526-0174, <b>30</b>
405–6164, <b>33</b> , <b>35</b>	503–0446, <b>13</b>	505–0150, <b>20</b> , <b>21</b>	526–0179, <b>9</b>
	503–0685, <b>25</b>	505–0158, <b>17</b> , <b>21</b>	526-0399-11, <b>43</b>
405–6167, <b>33</b> , <b>35</b>	503–0869, <b>27</b>	505–0167, <b>20</b> , <b>21</b>	526-0399-13, <b>17</b> , <b>21</b>
405–6168, <b>33</b> , <b>35</b>	503–0003, <b>27</b> 503–0977, <b>29</b> , <b>35</b>	505–0184, <b>14</b>	526-0399-42, <b>43</b> , <b>45</b>
405–6169, <b>33</b> , <b>35</b>	503–1138, <b>27</b>	505–0210, <b>17</b> , <b>20</b> , <b>21</b>	526–2100, <b>15</b> , <b>16</b> , <b>17</b> , <b>18</b> ,
405–6170, <b>33</b> , <b>35</b>	503–1136, <b>27</b>	505–0332, <b>20</b>	19, 20, 21
405–6195, <b>35</b>		505–0395, <b>9</b>	526–2120, <b>9</b>
405–6196, <b>35</b>	503–1606, <b>12</b> , <b>13</b>	505–0462, <b>22</b>	800–0008, <b>37</b> , <b>38</b>
405–6197, <b>35</b>	503–1870–05, <b>13</b>	505–0754, <b>15</b> , <b>16</b> , <b>18</b> , <b>19</b> ,	800–0024, <b>47</b> , <b>49</b>
405–6199, <b>35</b>	503–2085, <b>28</b> , <b>29</b>	20, 21	800–0045, <b>49</b>
405–6200–02, <b>35</b>	503–2092, <b>28</b> , <b>29</b>	505–0827, <b>9</b>	800–0051, <b>40</b> , <b>41</b>
405–6201–02, <b>35</b>	503–2159, <b>10</b>	505–1496, <b>18</b> , <b>19</b> , <b>20</b> , <b>21</b>	800-0081, <b>30</b> 800-0519, <b>43</b> , <b>45</b>
405–6202, <b>33</b> , <b>35</b>	503–2159–01, <b>38</b>	508–0051, <b>49</b>	800–0602, <b>37</b> , <b>38</b>
405–6228–02, <b>35</b>	503–2185–01, <b>29</b>	508–0305–02, <b>39</b> , <b>63</b>	800–2010, <b>10</b>
405–6229–02, <b>35</b>	503–2247, <b>13</b>	508–1127, <b>51</b>	800–2011, <b>11</b>
405–6231–02, <b>35</b>	504–0011, <b>9</b>	509–0094, <b>43</b> , <b>45</b>	800–2015, <b>9</b>
405–6235, <b>35</b>	504–0028, <b>9</b>	510–0112, <b>43</b> , <b>45</b>	800–2040, <b>30</b>
405–6236, <b>35</b>	504–0171, <b>20</b> , <b>21</b>	517–0094, <b>15</b> , <b>16</b> , <b>18</b> , <b>19</b> , <b>20</b> , <b>21</b>	800–2056, <b>27</b>
406–0332, <b>49</b>	504–0198, <b>9</b>	517–0131, <b>49</b>	800–2057, <b>30</b>
406–0333, <b>49</b>	505–0002, <b>15</b> , <b>16</b> , <b>17</b> , <b>18</b> , <b>19</b> , <b>20</b> , <b>21</b>	517–0133, <b>51</b>	800–2071, <b>28</b> , <b>29</b>
406-0334, <b>49</b>	505–0007, <b>9</b> , <b>14</b> , <b>18</b> , <b>19</b> , <b>20</b> ,	517–0138–09, <b>33</b> , <b>35</b>	800–2086, <b>9</b> , <b>30</b>
406–0614, <b>33</b>	21, 61	517–0289, <b>12</b>	800–2088, <b>9</b>
406–0615, <b>33</b> , <b>35</b>	505–0011, <b>61</b>	517-0301, <b>49</b>	800–2089, <b>9</b>
416–0549, <b>9</b>	505-0021, <b>15</b> , <b>16</b> , <b>18</b> , <b>19</b> , <b>21</b>	517–0302, <b>49</b>	800–2093, <b>9</b>
416-0961, <b>30</b>	505-0025, <b>33</b> , <b>35</b>	518–0601, <b>7</b>	800–2095, <b>30</b>
416–1019, <b>9</b>	505-0032, <b>33</b> , <b>35</b>	520–0799, <b>43</b> , <b>45</b>	800–3042, <b>51</b> , <b>63</b>
416–1021–02, <b>55</b> , <b>58</b>	505–0040, <b>17</b>		802–0038, <b>43</b>
416–1045, <b>9</b>	505-0043, <b>22</b>	520–0800, <b>43</b> , <b>45</b>	802-0040-01, <b>45</b>
416–1046, <b>9</b>	505-0051, <b>18</b> , <b>19</b>	520–1014, <b>12</b>	803–0032, <b>9</b>
416–1084, <b>9</b>	505–0054, <b>9</b>	520–1028, <b>15</b> , <b>16</b> , <b>17</b> , <b>18</b> , <b>19</b> , <b>20</b> , <b>21</b>	805-0015, <b>43</b> , <b>45</b>

Part No. Page	Part No. Page	Part No. Page	Part No. Page
812-0079, <b>55</b>	821–0004, <b>49</b>	850-0114-05, <b>45</b>	870-0131-01, <b>43</b>
812–0084, <b>33</b>	821–0010, <b>33</b> , <b>35</b> , <b>40</b> , <b>43</b> , <b>45</b>	850-0114-07, <b>43</b> , <b>45</b>	870-0183, <b>49</b>
812–0167, <b>46</b>	821–0014, <b>39</b>	850–2004, <b>41</b>	870–0212, <b>37</b> , <b>38</b>
813–0100, <b>43</b> , <b>45</b>	821–2032, <b>27</b>	850–2005, <b>9</b> , <b>10</b> , <b>11</b>	870-0221, <b>33</b> , <b>55</b>
813–0107, <b>38</b>	821–2033, <b>28</b> , <b>29</b>	850–2008, <b>27</b> , <b>28</b> , <b>29</b>	870–0250, <b>40</b>
815-0194, <b>28</b> , <b>29</b> , <b>43</b> , <b>45</b>	821–2034, <b>23</b>	850–2010, <b>9</b>	,
815-0236, <b>39</b> , <b>51</b>	821–2050, <b>22</b>	850–2056, <b>30</b>	870–0257, <b>28</b> , <b>29</b> , <b>30</b> , <b>47</b>
815–0385, <b>49</b>	821–2060, <b>24</b>	853-0008, <b>43</b> , <b>45</b> , <b>49</b>	870–0258, <b>33</b> , <b>35</b>
815–0388, <b>49</b>	821–5000–05, <b>49</b> , <b>59</b>	853-0013, <b>40</b>	870-0281, <b>28</b> , <b>29</b>
815–0538, <b>53</b> , <b>55</b>	821–5002–04, <b>41</b>	856-0006, <b>39</b> , <b>51</b>	870–1220, <b>49</b>
815–0793–03, <b>10</b>	821–6001–02, <b>33</b> , <b>35</b> , <b>59</b>	856-0008, <b>39</b> , <b>47</b> , <b>49</b> , <b>51</b>	870–2054, <b>51</b>
815–0823, <b>40</b>	821–6001–03, <b>39</b> , <b>51</b>	856–0009, <b>30</b>	870–2055, <b>9</b> , <b>15</b> , <b>16</b> , <b>17</b> , <b>18</b> ,
815–0865–13, <b>41</b>	821–6002–03, <b>24</b> , <b>39</b> , <b>51</b> , <b>63</b>	856–0010, <b>9</b> , <b>40</b>	19, 20, 21, 22
815–0875–02, <b>49</b>	821–6002–04, <b>31</b>	860–2005, <b>41</b>	870-2064-01, <b>51</b> , <b>63</b>
815-0901-06, <b>49</b>	821–6003–02, <b>26</b> , <b>28</b> , <b>29</b> , <b>33</b> , <b>35</b>	860–2006, <b>9</b> , <b>10</b> , <b>11</b>	870–2204, <b>59</b>
815-0905-08, <b>49</b> , <b>60</b>	821–6003–03, <b>15</b> , <b>16</b> , <b>17</b> ,	860–2057, <b>51</b>	871–0015, <b>49</b>
815-0925-01, <b>51</b>	18, 19, 20, 21, 23	862-0001, <b>40</b>	895–0387, <b>33</b> , <b>35</b>
816–0152, <b>28</b> , <b>29</b>	821–6007–02, <b>29</b> , <b>35</b>	862-0026-07, <b>43</b> , <b>45</b>	898–0860, <b>47</b>
818-0006, <b>43</b> , <b>45</b>	850–0040, <b>37</b> , <b>38</b> , <b>43</b> , <b>46</b>	865–0006, <b>12</b>	898–1195–01, <b>47</b>
818–0150, <b>33</b> , <b>35</b>	850–0045, <b>49</b>	865–0020, <b>12</b>	090-1190-01, 41
818-0231-02, <b>26</b> , <b>29</b> , <b>33</b> ,	850–0050, <b>41</b>	870-0131, <b>37</b> , <b>38</b> , <b>43</b> , <b>45</b> ,	
35, 63	850–0055, <b>30</b>	49, 59, 62	LF3501, <b>9</b>

**Cummins Power Generation** 1400 73rd Ave. NE Minneapolis, MN 55432 USA

Phone 1 763 574 5000 Toll-free 1 800 888 6626 Fax 1 763 574 5298
Email ask.powergen@cummins.com
www.cumminspower.com

Cummins  $^{\$}$  , the "C" logo, and "Our energy working for you." are trademarks of Cummins Inc.

 $\ensuremath{\texttt{©}}\xspace$  2009 Cummins Power Generation, Inc. All rights reserved.

